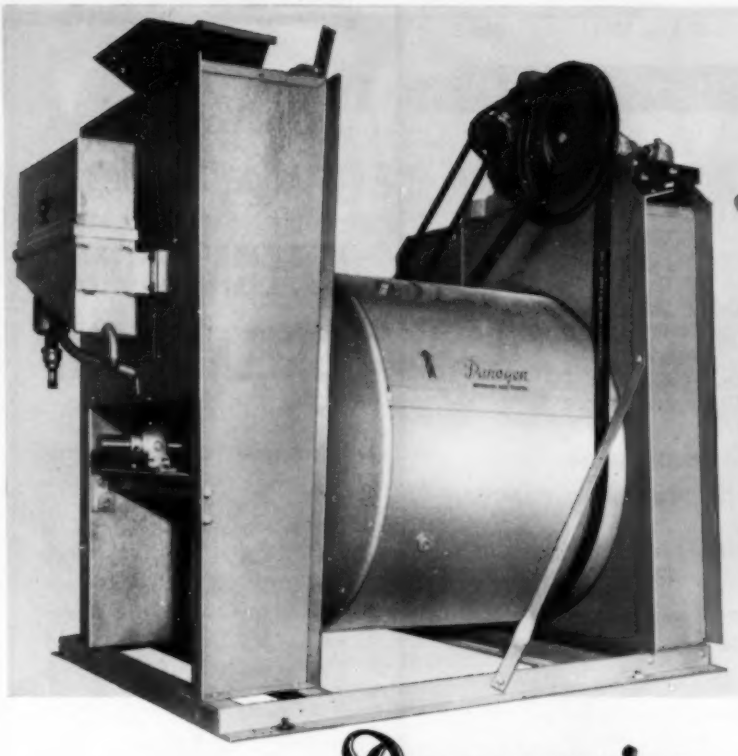
PRESS

59th year

Entered as Second-class matter February 4, 1905, at the Post Office at Dallas, Texas, Under Act of Congress of March 3, 1897



The new, fully automatic

Panogen®

MODEL LC SEED TREATER

$395

INCLUDES ELECTRIC MOTOR AND BUILT-IN FAN

Now you can *Panogenize* 350 bushels of seed per hour for only about ½ the regular equipment cost

Here's a fully automatic PANOGEN Liquid Seed Treater at an unbelievably low price!

The new PANOGEN MODEL LC is a "push-button" Treater which offers the same dependable service as the larger Panogen Models. It treats 350 bushels per hour . . . uniformly, thoroughly, accurately.

It employs the same proven principle of tumble-mixing in a revolving drum so you are sure the seed is handled gently. It offers the same automatic clean-out of seed and a powerful built-in fan removes chaff and other extraneous material.

In short, the new MODEL LC offers you the basic features that have enabled Panogen Treaters to give year after year of efficient, trouble-free service since their introduction in 1948.

Profit from Panogenizing. With its low initial cost, dependability, and efficient performance, the new MODEL LC will help you make seed treating an even more profitable part of your business. In most cases, it should pay for itself the first season.

Satisfied Customers. And when you treat seed by the popular PANOGEN PROCESS (liquid PANOGEN applied in a PANOGEN Treater), you offer your customers the benefit of the best and most modern seed treatment . . . effective disease control, higher yields, more profit per acre.

Use the coupon to obtain more information about this unusual treater . . . and your free copy of the new 16-page booklet, *"The Benefits Of A Modern Seed Treatment"*.

A PRODUCT OF

Panogen® COMPANY

Liquid Panogen | Liquid Drinox | Panoram Fungicide | Automatic Seed Treaters | Liquid Conversion Kits | Larvacide Fumigants

PANOGEN COMPANY, RINGWOOD, ILLINOIS

☐ Please send information on new Panogen Model LC Seed Treater

☐ Please send free copy of booklet, "The Benefits Of A Modern Seed Treatment"

Name_____

Firm_____

Address_____

City_____ State_____

VOL. 59 FEB. 8, 1958 NO. 3

THE COTTON GIN AND OIL MILL PRESS

THE COTTON GIN AND OIL MILL PRESS...
READ BY COTTON GINNERS, COTTONSEED CRUSHERS AND OTHER OILSEED PROCESSORS FROM CALIFORNIA TO THE CAROLINAS

* * *

OFFICIAL MAGAZINE OF:
NATIONAL COTTONSEED PRODUCTS ASSOCIATION
NATIONAL COTTON GINNERS' ASSOCIATION
ALABAMA COTTON GINNERS' ASSOCIATION
ARIZONA GINNERS' ASSOCIATION
ARKANSAS-MISSOURI GINNERS' ASSOCIATION
CALIFORNIA COTTON GINNERS' ASSOCIATION
THE CAROLINAS GINNERS' ASSOCIATION
GEORGIA COTTON GINNERS' ASSOCIATION
LOUISIANA-MISSISSIPPI COTTON GINNERS' ASSOCIATION
NEW MEXICO COTTON GINNERS' ASSOCIATION
OKLAHOMA COTTON GINNERS' ASSOCIATION
TENNESSEE COTTON GINNERS' ASSOCIATION
TEXAS COTTON GINNERS' ASSOCIATION

*

THE COTTON GIN AND OIL MILL PRESS is the Official Magazine of the foregoing associations for official communications and news releases, but the associations are in no way responsible for the editorial expressions or policies contained herein.

WALTER B. MOORE
Editor

HELEN TROY
Editorial Assistant

WASHINGTON REPRESENTATIVE (EDITORIAL ONLY)
FRED BAILEY
744 Jackson Place, N.W.
Washington 6, D. C.

Published by
HAUGHTON PUBLISHING COMPANY

RICHARD HAUGHTON
Chairman of the Board

DICK HAUGHTON, JR.
President and Advertising Manager

GEORGE H. TRAYLOR
Executive Vice-President and Secretary-Treasurer

IVAN J. CAMPBELL
Vice-President

B. P. RIDGWAY
Vice-President and General Superintendent

SUBSCRIPTION RATES:
Domestic: 1 year $3; 2 years $5; 3 years $7. Foreign: Latin-American countries $10; all others $15 per year. (Not accepted for "Iron Curtain" countries). All subscriptions cash with order.

Published Every Other Saturday

* * *

EXECUTIVE AND EDITORIAL OFFICES:
3116 COMMERCE STREET, DALLAS 26, TEXAS

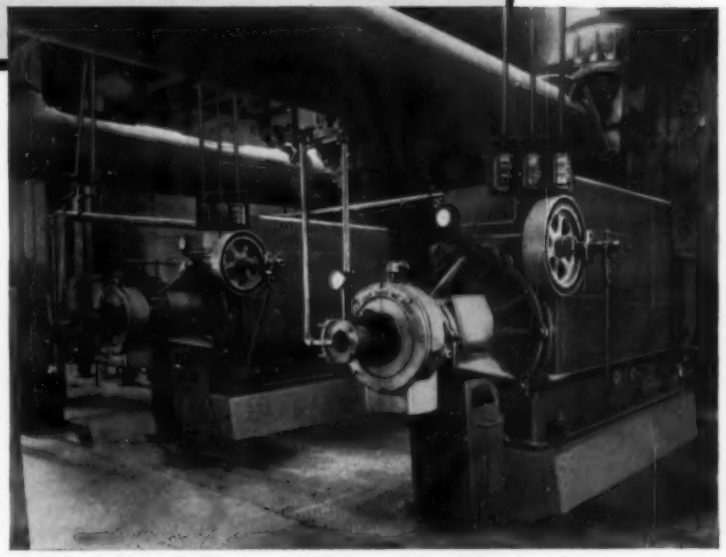
OUR COVER SCENE:

Duck hunters may be especially interested, but our cover scene was not published just to make the Nimrods want to get out amongst 'em. We think the combination of the sky, ducks and cattails makes one of the prettiest pictures that we've had in a long time. It almost makes us hate to see winter coming to an end, but our regrets won't last past the first nice spring scene we see.

Photo by A. Devaney, Inc.

THE NEW SUPER-DUO 55 EXPELLER HAS CRASHED THE 3% BARRIER AT 50 TONS PER DAY!

	cottonseed	peanuts
CAPACITY	51	50
% MOISTURE	8.03	1.20
% OIL	2.84	3.20
% AMMONIA	7.98	9.63
% PROTEIN	41.00	49.50
% NITROGEN	6.56	7.92
STANDARD	36	33



These figures show how the new Anderson 55 Expeller has "broken" the 3% barrier on cottonseed at a capacity of 50 tons/day, and obtained equally outstanding results on other materials. The versatile Super-Duo 55 is producing cake at high capacities with unbelievably low residual oils on a variety of materials. This new model of the famous Anderson High Capacity Expeller fills your need for a high production machine that obtains remarkably low residual oils. If you are modernizing or expanding, be sure to write for complete information on the Super-Duo 55. Anderson engineers in many instances can convert your present Expeller equipment to this new machine. Send for full details today.

THE V. D. ANDERSON COMPANY

division of International Basic Economy Corporation

1941 WEST 96th STREET • CLEVELAND 2, OHIO

laugh it off

"Yes, I'll give you a job," said the manager of a small store to the applicant. "Your first duty will be to sweep out the store.

"But I'm a college graduate."

"Very well, then, I'll show you how."

• • •

The manager of a nudist colony was wondering why a certain pretty girl nudist was assiduously avoiding the sun as if a tan was the worst thing that could happen to her. After mulling this over for a while, he said to his assistant: "Got it! Maybe she wants a wedding in white!"

• • •

Then there was the baby rabbit who kept pestering his mother all day. Finally, the exasperated Mom Bunny could take it no longer.

"You were pulled out of a magician's hat—now go back to your lettuce!"

• • •

There was a great big spinster, a middle-sized spinster and a little bitta spinster. They came home one night and the great big spinster looked in her room and said, "Somebody's been sleeping in my bed." The middle-sized spinster took a look and cried, "And somebody's been sleeping in my bed. Then the little bitta spinster looked in her bed and said, "Goodnight, girls."

• • •

"F-e-e-t. What does that spell, Johnny?" asked the teacher.

Johnny didn't know.

"What is it that a cow has four of and I have only two?" persisted the lady.

(Well, anybody could have made the same mistake.)

• • •

An old hillbilly and his wife went to the city on business. Since they had never stayed overnight in a hotel, they decided on the most swanky one in the city. They were shown to their room.

A television set was turned on when they entered, so they sat down and enjoyed the show very much for a while.

Then the old man became angry and shouted to his wife, "Maw, tell those show people to get away from our window so I can undress and go to bed."

• • •

"We are living in a lying and decadent age.

"Youth is corrupt, lacking in respect for elders, impatient of restraint. Age-old truth is doubted and the teaching of the fathers questioned. The signs of the time forecast the destruction of the world at an early date, and the end of time."

The above, by the way, is an inscription on an ancient Egyptian tomb!

• • •

Laundromat sign: "Ladies, leave your clothes here and spend the afternoon having a good time."

• • •

Bob: "Can you do anything that other people can't?"

Herb: "Why, yes. I can read my own handwriting."

• • •

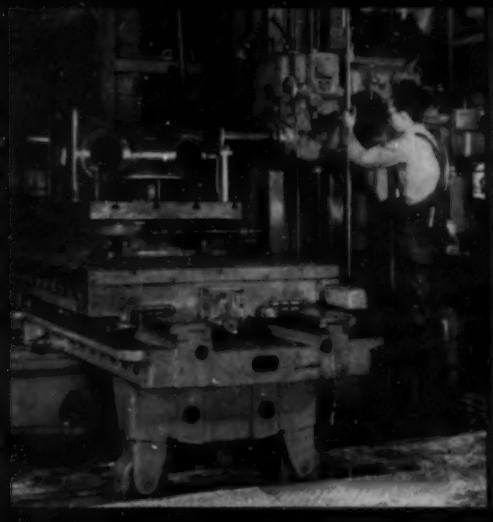
Soldier: "Is your ice cream pure?"

Salesgirl: "As pure as the girl of your dreams."

Soldier: "Give me a ham sandwich."

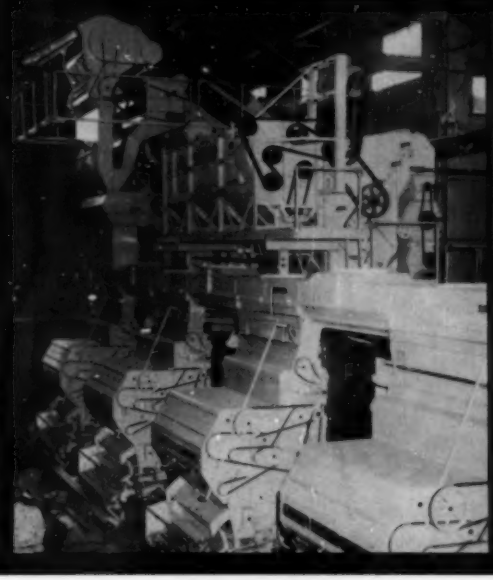
ENGINEERING

Murray is staffed with the finest Engineering Department obtainable, with years of vast knowledge and experience in research and design . . . specializing in cotton ginning and cotton processing machinery. Modern and up-to-date concepts from the drawing board. Each Murray machine is designed to do a specific job, and to work in coordination with all other units.



MANUFACTURE

Well-equipped and modern facilities of the Murray plant afford precision machine-time and precision construction for each item, and complete assembly manufactured in the shops. Using the finest materials obtainable, utilizing worthwhile methods, assuring long and trouble-free service for all Murray machinery.



INSTALLATION

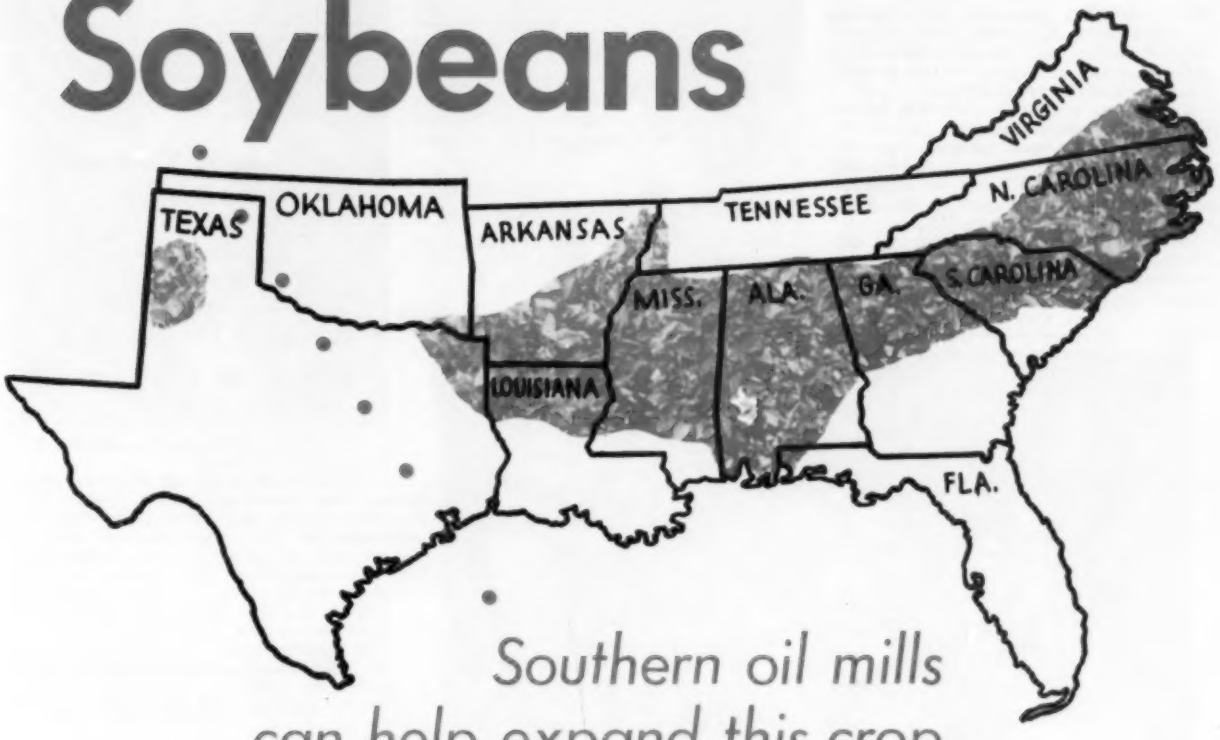
Competent service personnel with long years of experience in the erection of all Murray machinery exacts the final stage . . . your outfit is now ready to do the finest processing of the cotton that is possible. Machinery that is available in any size or capacity to suit the needs of any customer or particular condition. Machines that are known for fine quality and dependable performance.

MURRAY

THE MURRAY COMPANY OF TEXAS, INC.

Dallas • Atlanta • Memphis • Fresno

Soybeans



Southern oil mills can help expand this crop

Red areas of map show where the Lee variety of soybean has proved its adaptability in tests; other varieties do well in some nearby areas.

SOYBEANS have saved many cotton oil mills in the Midsouth and Southeast from economic disaster. Soybeans may offer other mills the best chance they have to stay in business.

Soybean production can expand in many parts of the Cotton Belt. The South can compete with the Corn Belt in bean growing.

The cottonseed supply situation and future outlook are too well-known to require reviewing here. Certainly, though, conditions call for most cotton oil mills to look carefully into any possibility for getting a larger crush.

• **Soybeans Look Good** — Soybean facts are encouraging over much of the Belt. Here are some of them: (For comparison, measure them against a U.S. average soybean yield of 20.2 bushels per acre, 1946-55; the 23-bushel average of Illinois, leading soybean state.)

State average soybean yields in the South do not suffer much by comparison. This is encouraging when we consider the fact that soybeans are relatively new to many Southern farmers, and they've often been treated as a stepchild in the South. Corn Belt States average only four to five bushels per acre better yields than the best Cotton Belt States, and it seems likely that more experience may enable the South to eliminate the difference.

Experiment Station yields in Southern tests also compare well with similar results elswhere. A few examples of these are:

Soybeans have yielded an average of over 40 bushels per acre for seven years at Stoneville, Miss.

Soybeans have produced 50 bushels per acre in the Brazos Bottoms of Texas, and in Western Oklahoma irrigated areas.

On Texas' High Plains, soybeans can compete with grain sorghums for land use. Beans are better than sorghums for a cotton rotation.

The new Lee variety has greatly improved the soybean outlook of the South. It will grow over much of the Belt from the Carolinas to Texas (see map.) Lee beans may be suited for other areas where they haven't been tried. There are other good soybean varieties that are recommended and have done well. And breeders are working to give the South even better varieties.

(In listing these favorable results, we have not overlooked the fact that there remain some areas of the Cotton Belt where no adapted variety of soybean has yet proved its worth. More research is needed and public research agencies and industry groups, such as the NCPA Research Committee, are working on this problem).

"The South can compete with the Corn Belt," emphasizes the man who probably has done more than any other one person to put the area in the soybean business. He's Dr. Edgar E. Hartwig, USDA, Stoneville, Miss., regional coordinator for the soybean research program in the South.

By WALTER B. MOORE
Editor,
The Cotton Gin and Oil Mill Press

Mills Need Help, Can Get It

This situation should encourage the cotton oil industry to do everything possible to develop sound, long-term soybean expansion where the beans will grow. Such a program will help farmers and the community in which mills are located. To succeed, a soybean program has to have the support of local farm and business leaders. No oil mill or trade association can do it alone.

Fortunately, oil mills at this time have an abundance of help available. USDA and state land-grant colleges have developed much information in recent years. National Cottonseed Products Association, through Dalton E. Gandy, Ed Hollowell and Kenneth O. Lewis of its Research and Educational Division, made a careful study of soybeans in the South last year. American Soybean Association, National Soybean Processors' Association and other organizations have much information.

This article is written to help oil mills. It will be followed by other special artfcles, making use of the most authoritative information that is available, designed to promote soybean expansion in the South.

• **Key To Successful Program** — People who know soybeans and have had long experience in agricultural work list certain essentials in starting an expan-

(Continued on Page 38)

• Processors-USDA Sponsor Clinic

COTTONSEED processing and related problems were discussed by representatives of the oil mill industry and allied industries and scientists at the seventh Cottonseed Processing Clinic.

The Clinic was held Feb. 3-4 at the Southern Regional Reserve Laboratory in New Orleans, and sponsored by the Valley Oilseed Processors' Association and the Southern Utilization Research and Development Division of the Agricultural Research Service, USDA.

Dr. C. H. Fisher, director of the Southern Division, and James Hicky, president of Valley Oilseed Processors, opened the initial session.

Cottonseed meal research, breeding to eliminate gossypol in cottonseed, cottonseed cleaning, oil quality improvement, utilization of cotton linters and other processing topics were discussed in papers and open forums during the Clinic.

A luncheon and tour of the Laboratory, as well as individual conferences between industry representatives and USDA personnel, were among features of the Clinic.

Indian Crop Increases

India's cotton production currently is estimated at 4,220,000 bales. USDA says this is four percent above the 1956-57 crop.

Press Article Reprinted

The Camden News, Camden, S.C., has reprinted a feature from The Cotton Gin and Oil Mill Press about J. T. Gay, 83-year-old ginner at Westville, S.C. Author of the article is Thomas Ancrum, retired oil mill manager, who frequently writes articles about historical events in South Carolina.

Entomologists To Meet

C. R. Parencia, chairman, has announced that the Southwestern Branch, Entomological Society of America, will hold its sixth annual meeting Feb. 10-11. The meeting will be at the Shamrock-Hilton Hotel in Houston.

• Western Conference Will Hear White

IMPROVED QUALITY and lower production costs will be stressed March 4-5 at the Western Cotton Production Conference in El Paso.

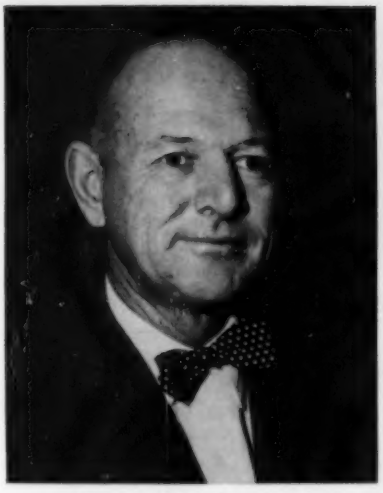
E. D. White, associate director, Office of Food and Agriculture, International Cooperative Administration, Washington, will open the program with an analysis of the world cotton situation.

Discussions of fiber quality will complete the first session. They will include effect of fiber quality on mill operations and cotton consumption, effect of new technological production practices on fiber quality, needs and progress in reflecting spinning values in the marketing system, and improving western cotton varieties.

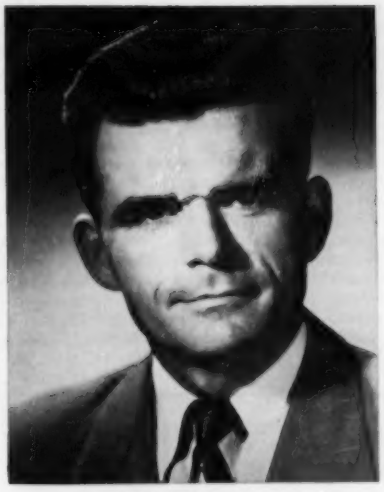
The Conference will then consider research reports on specific problems and production practices—soil compaction, irrigation, fertilization, skip-row planting, disease control, insect control, weed control, and controlling cotton fruiting. Other subjects include defoliation, machine-picking, and latest developments in ginning Upland and long staple cotton.

The conference is co-sponsored by the National Cotton Council and the Southwest Five-State Cotton Growers Association, in cooperation with El Paso Valley Cotton Association and other cotton organizations, and land-grant colleges, the agricultural chemicals industry, and others.

E. D. WHITE



DR. LUTHER BRANNON



EDWARD H. BUSH

TWO OF THE SPEAKERS at the annual convention of the Oklahoma Cotton Ginners' Association will be Dr. Luther Brannon (left), director of Oklahoma Extension Service, and Edward H. Bush, executive vice-president, Texas Cotton Ginners' Association. The convention will be held Feb. 27-28, at the Skirvin Tower Hotel in Oklahoma City.

In Oklahoma City

Oklahoma Ginners Plan Convention

■ **DATE set for Feb. 27-28 annual gathering, when Ginner-of-the-Year Award will be presented.**

Dr. Luther Brannon, director of Oklahoma Extension Service, will be among the featured speakers at the Oklahoma Cotton Ginners' Association annual convention, Feb. 27-28 in Oklahoma City.

Skirvin Tower Hotel will be the scene of the convention activities, which will include the presentation of the annual Ginner-of-the-Year award, as well as awards to the 4-H and FFA cotton production champions for 1957.

Dr. Brannon will speak on the future outlook of cotton production in Oklahoma and will unveil a publication entitled, "A 10-Year Cotton Program in Oklahoma," recently prepared by Oklahoma Experiment Station, Cotton Committee and Extension Service.

Edward H. Bush, executive vice-president, Texas Cotton Ginners' Association, also will address the convention. His subject will be, "What The Cotton Industry Must Do To Insure Its Future."

The general session of the convention will open Thursday, Feb. 27 at 1:30 p.m. with W. A. Balentine of Maysville, president of the Ginners' Association, presiding. The convention will continue through noon of Feb. 28, and will include a general business session, and banquet and ball in the Persian Room on Feb. 27.

Other officers besides Balentine, are G. N. Irish, Muskogee, first vice-president; J. S. Morrison, Chickasha, second vice-president, and Edgar L. McVicker, Oklahoma City, secretary-treasurer.

Directors include B. M. Hager, Elk City; Robert G. Davis, Altus; Joe A. Evans, Dill City; C. C. Jackson, Grandfield; Sam LaFaver, Watonga; Everett Nelms, Chickasha; J. W. "Tab" Dowlen, Temple; M. N. Pannell, Lawton; Arthur Lyle, Crescent; E. J. Mitchell, Wynnewood; J. T. Palmer, Okemah; I. G. Washington, Kenefic, and A. Grossman, Canadian.

Year's Mellorine Output Down Three Percent

Production of mellorine and other frozen desserts made with fats and oils other than milk-fat during December was estimated by the Agricultural Marketing Service, USDA, at 1,715,000 gallons. This was 14 percent larger than the December output last year and was 12 percent above the same month in 1955. The combined 12 monthly estimates for 1957 indicate an output of 31,715,000 gallons for the year, three percent smaller than the 1956 production and two percent below the total quantity frozen in 1955.

Mellorine production declined only four percent between November and December this year, compared with a drop of 16 percent in 1956 and a seasonal decrease of 20 percent between these months in 1955.

Ice cream production for December was 40,745,000 gallons, a new record for the month. The 12 monthly 1957 estimates indicate production totals of 647,675,000 gallons for the year, which represent a one percent increase over the 1956 total output, and an eight percent increase from the 1951-55 averages.

Pest Control Group Meets

Charles A. Parker, executive director, National Aviation Trades Association, Washington, will address the Texas Agricultural Aviation Conference and Short Course on Pest Control. He will speak at a banquet during the Feb. 16-18 meeting at Texas A&M College, College Station.

Spain To Buy Oils

Spain has contracted with USDA to buy about $41,800,000 worth of cottonseed and soybean oil with PL 480 funds. The contract includes about 75,000 bales of cotton, feed grains and dairy products.

DeLisle-Pikey install popular Panogen Process

DeLisle-Pikey Gin & Delinting Co., of Conran, Missouri, studied reports from agricultural colleges in all cotton producing states, then installed the automatic Panogen seed treater shown above.

"From now on, all seed treated in our plant will be Panogenized," says Chas. Pikey, Jr. "Our customers receive excellent results from Panogenized seed and also like the pink coloring."

ADV.

Oilseed Products Institute Meets, Re-elects Pattison

Thayer Pattison, Vegetable Oil Products Co., Wilmington, Calif., was re-elected president of the National Institute of Oilseed Products at its recent meeting at The Wigwam Hotel in Litchfield Park, Ariz.

More than 120 members and their wives attended the meeting which was addressed by J. E. Th. M. Randag of Unilever Grondstoffen Maatschappi, The Netherlands; Walter Berger, administrator, Commodity Stabilization Service, USDA, Washington, D.C., and R. A. Duncan of Procter & Gamble, Cincinnati, Ohio.

Much of the meeting was devoted to the subject of "Copra Quality," which the N.I.O.P. is attempting to improve.

Other officers elected are Howard Boone, Cargill, Inc., San Francisco, first vice-president; B. T. Rocca, Pacific Vegetable Oil Corp., San Francisco, second vice-president; and L. C. Brooks, Procter & Gamble, Los Angeles, secretary-treasurer. Directors are these officers and Hugh Arnold, Paul X. Smith Co., San Francisco; A. A. Schumann, Western Vegetable Oils Co., San Francisco; Irving Koppel, Koppel Brothers, Wilmington, Calif.; George E. Talmage, Jr., Pacific Transport Lines, San Francisco; Edward Douglass, Jr., Los Angeles Soap Co., Los Angeles; C. I. Richards, Richards-Corominas, Manila, P.I., and Randag.

Meetings, Exhibits Held for Ginners

Ginners and representatives of allied industry are in Atlanta for the Southeastern Gin Suppliers' Exhibit at the Biltmore Hotel. Alabama-Florida, Carolinas and Georgia Cotton Ginners' Associations are holding business sessions in conjuction with the extensive exhibits there. The Press of Jan. 25 gave details of the business and entertainment program.

• Cotton Congress Plans Drafted

PRELIMINARY PLANS for the nineteenth annual American Cotton Congress were made Jan. 27 at a committee meeting in Dallas. Sponsored by the Statewide Cotton Committee of Texas, the Congress will be held June 5-7 in the Lower Rio Grande Valley of Texas, and the adjoining cotton area of Mexico.

General Chairman Burris C. Jackson of Hillsboro presided at the Dallas committee meeting. Entertainment plans and subjects for discussion were outlined, and detailed plans will be made at a future meeting of the committee.

Lower Valley representatives offered a luncheon at Harlingen, tour and luncheon at Brownsville, cocktail party and dinner at Harlingen, tour and cocktail party in Mexico and barbecue at Rio Farms as special features for the meeting.

Texas, USDA, Mexican and private research centers in the area, as well as the cotton producing and processing centers, will be attractions for visitors from all parts of the U.S. Cotton Belt and from Mexico.

At Atlanta Biltmore

Ask Crushers To Make Hotel Reservations

Hotel reservations should be made now for the National Cottonseed Products Association convention, May 5-6 at the Biltmore Hotel in Atlanta. John F. Moloney, Memphis, secretary-treasurer, has sent NCPA members a card for making reservations direct with the hotel. NCPA's rules committee will meet there Friday, May 2.

Georgia's capital is host this year for the crushers' national organization for the first time since 1906. To plan the meeting, President Dupuy Bateman has named a committee composed of S. P. Cottraux, chairman; W. H. Bray, C. W. Hand, J. V. Haynes, E. C. Kontz, T. C. Law and H. G. Richey.

Slides Feature Irrigation

Twenty-four colored slides on supplemental irrigation are available from National Cotton Council. They are designed chiefly for vocational agriculture teachers and county agents to use in humid areas of the Cotton Belt. Cost is $6 per set, including a complete script for narrating the slides, instructors' worksheet and other material.

World Summaries

Fats-Oils Production At Record High

■ FIGURES, made available by USDA, show production up for the fourth successive year.

World production of fats and oils in 1957 is estimated by the Foreign Agricultural Service, USDA, at 30,600,000 short tons. This volume of oil establishes a record high for the fourth successive year, exceeding output in 1956, now estimated at 29,200,000 tons, by five percent and surpassing average prewar production by almost one-third. With this substantial increase, per-capita output in 1957 was roughly five percent higher than prewar.

Production in 1957 is estimated to have increased from 1956 in three of the five categories of fats and oils. The most significant increases were in the edible and industrial oils groups. And while animal fats increased slightly, there were minor declines in palm and marine oils.

While the major portion of the overall increases reflected expansion in the free areas of the world, an appreciable portion is accounted for by Communist areas. For example, there are believed to have been substantial increases in the production of sunflower seed and cottonseed oils (derived from 1956 crops) and in butter output in the Soviet Union. Moreover, the output of oil from Chinese peanuts increased substantially and the oil output from China-Manchurian soybeans went up slightly.

Edible vegetable oil (which includes cottonseed, peanut, soybean, sunflower, rapeseed, sesame and olive oil) production in 1957 increased almost 10 percent from the previous year. All oils except cottonseed were up, principally because of a record peanut crop in French West Africia and near-record crop in India, a record soybean crop in the U.S., a sharp expansion of rapeseed in China and Canada, a large production of sunflower seed in both Argentina and the Soviet Union, and an above-average outturn of olive oil in the Mediterranean Basin.

Edible oil production in 1958 from crops of 1957 is expected to approximate the 11,700,000-ton estimate for 1957. This estimate is based on the new record world peanut and soybean crops and another above-average olive oil outturn. The 1957 peanut crops in French West Africa, Nigeria, and India were at an all-time high as was the U.S. soybean crop. With respect to olive oil, a good outturn is foreseen in Greece, Italy, Portugal and Spain, countries which normally account for 75 to 85 percent of the world's total olive oil production.

Cottonseed and sunflower seed oils will be down substantially, reflecting the 16 percent decline in U.S. cottonseed output and similar sharp reductions in sunflower seed production in the Soviet Union and Argentina. The slight decline foreseen in sesame oil is due principally to a smaller outturn of seed in Mexico.

Ed Gillespie Married

ED GILLESPIE, National Cotton Council Western field supervisor, no longer is one of the industry's most eligible bachelors. Friends have received the following announcement: "Mr. and Mrs. Harry C. Turnbull have the honor of announcing the marriage of their daughter, Jean Fritz, to Mr. Edwin Cyril Gillespie on Saturday, January 28, Wee Kirk O' The Heather Church, Glendale, Calif." The couple is at home at 2607 Chester Lane, Bakersfield, Calif.

as viewed from The PRESS Box

• Margarine Leads

MARGARINE OUTPUT exceeded creamery butter volume in 1957 for the second time in history. The only other time was in 1952, says National Association of Margarine Manufacturers. Margarine's margin over creamery butter was 39 million pounds last year. The 1,460,544,000 pounds of margarine produced represented a record high. Creamery butter volume was 1,421,740,000 pounds in 1957.

• Search for Cyst

THE SEARCH for the soybean cyst nematode covered 750,000 acres in 25 states last year, USDA reports. The pest was found on 15,626 acres in six states—Arkansas, Kentucky, Mississippi, Missouri, North Carolina and Tennessee.

• Ginners Praised

GINNER'S TROUBLES in the Southeast were discussed recently by J. M. Eleazer, South Carolina Extension writer. He praised Lee County gins that improved cotton quality $10 to $20 bale through improved lint cleaning equipment. Eleazer then added:

"Few groups are up against a harder problem than our ginners. Our cotton crop is dwindling low in many a county, yet improvements is ginning keep coming. And these are not cheap either. This is hard on the oil mills too. But soybeans are offering hope to them. A good gin outfit now costs several times what it used to. Yet our cotton acreage is less than a fifth of what it once was. Unless he also handles seed and fertilizer, I can't see how the ginner keeps performing his service. And even then, his road must be rough."

• Play It Safe . . . and Dull

CONVENTION TIME'S APPROACH for most ginners and crushers makes this warning timely. Keep away from strangers, gambling and Mickey Finns when conventioning, says Cincinnati Detective Floyd Niswonger. He told a Rotary Club: "When going to a tavern, find the ugliest woman in the place. Sit down with her and have a couple of drinks. When she starts looking good, go home. You've had it."

• Plains, California Tie

TEXAS HIGH PLAINS and California appear to be tied for the title of the second largest cotton-producing "state" in 1957-58. Excluding the Plains, the remainder of Texas has produced two million bales of cotton. The High Plains area of West Texas has produced another 1,500,928 bales. California has produced 1,516,144 bales. Mississippi ranks next with 1,034,483 bales and Arkansas next with 920,056 ginned to Jan. 16.

• Eggsplain This

WHICH CAME FIRST, the loans or the surplus? Senator John J. Williams of Delaware points out that USDA has loaned $35 million to farmers to encourage poultry production during the past three years. During the same time, USDA agencies spent $12 million to buy surplus eggs.

• Alabama Hard Hit

COTTON FARMERS in Alabama "are now worse off economically than they were during the Thirties." Arthur Young, ginner and farmer of Lawrence County made this comment recently when he and other ginners and producers testified before the Alabama Cotton Legislative Study Committee. Hearings are being held throughout the state.

• Plains To Choose Maid

OCT. 13-14 have been set as the dates for the Texas South Plains to choose its next Maid of Cotton and candidate for the National Maid of Cotton title. Dixon White, Lubbock, is chairman of the sponsoring committee.

• Corn into Rice

CORN IS TURNED INTO "RICE" by a new machine. An American has sold the device to the Philippine government. The idea is to make corn palatable for rice-loving people, who can't grow enough rice but have plenty of corn.

• Cattle Blood-Typed

PARENTAGE of cattle can be determined by blood types, USDA reports. Analysis of cattle blood types is being used to safeguard registration of purebred dairy animals.

• Hardwicke-Etter Co. Elects, Pays Bonus

HARDWICKE-ETTER CO., Sherman, Texas, has announced the recent election of officers and directors, a division of earnings in which 405 eligible employees received $121,500, and the retirement of R. C. Slagle, Sr., secretary-treasurer, who continues as a director.

L. S. Omohundro, Sherman banker, was added to the board of directors. Re-elected directors were Dr. William A. Altman, Dallas; R. E. Hardwicke, Fort Worth; and Mrs. Ethel Altman, A. D. Denton, J. E. Jamison and Slagle, all of Sherman.

Dr. Altman is chairman of the board, Jamison is president and treasurer; Henry B. Quick, executive vice-president; and Denton, vice-president and secretary.

Hardwicke-Etter Co. reported that the bonus of $121,500 to employees compared with $82,500 last year.

Slagle's retirement ends an active career of 47 years with the firm. He began in 1911 as bookkeeper, and worked with the men who expanded the company (then only a wholesale distributor of gin and mill supplies) into a manufacturing firm.

He has taken an office in the Commercial Building where he will take care of his private interests. He is a member of First Methodist Church.

His wife has been dead many years.

Slagle has one son, R. C. Slagle, Jr., Sherman attorney and former district court judge, and two grandsons, Robert, III, a senior student at Texas Christian University, Fort Worth, and Henry, a Sherman High School senior.

NCPA Directors Meet

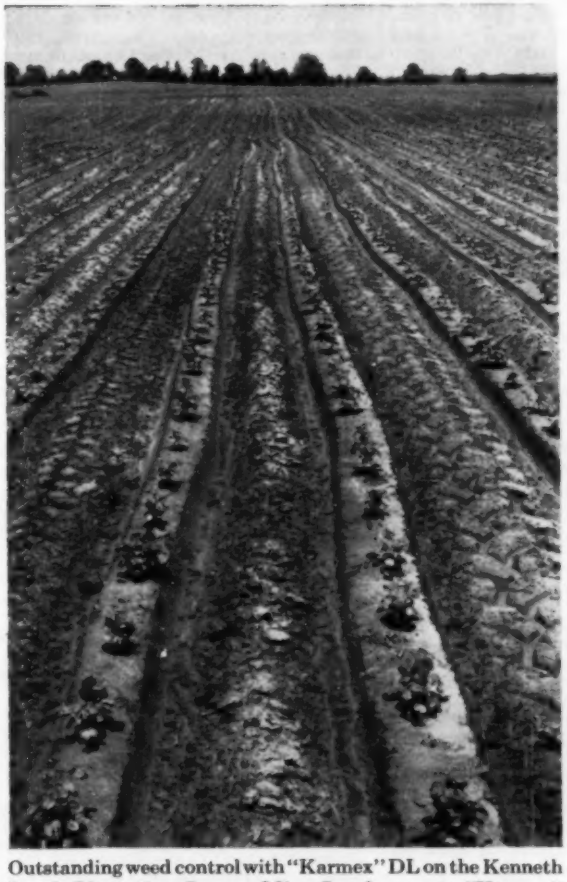
Directors of National Cottonseed Products Association held their regular quarterly meeting in Dallas on Feb. 7.

Fact Finding Committee Members Meet in Washington

MEMBERS OF a special fact finding committee of a USDA-industry study group on cotton quality met in the National Cotton Council office in Washington, Jan. 23. Members of the fact finding committee are George S. Buck, Jr., chairman, National Cotton Council, Memphis; William H. Fortenberry, USDA, Washington; Sam T. Burley, Jr., USDA, Washington; A. Mason DuPre, USDA, New Orleans; Charles Merkel, USDA, Stoneville, Miss., and Walter Regnery, American Cotton Manufacturers' Institute, Joanna, S.C. Pictured at the Washington meeting are (front row, left to right) L. T. W. Bailey, Jr., USDA, Washington; Merkel, Burley, Fortenberry, Buck, Leonard Smith, National Cotton Council, Washington, and DuPre. Back row (left to right) are Regnery, J. T. Rouse, USDA, Washington; Burt Johnson, National Cotton Council, Memphis; Thomas Kerr and Wilbur M. Hurst, USDA, Beltsville, Md.; William Faught and Maurice R. Cooper, USDA, Washington, and Robert V. Miraldi and Robert F. Lederer both of the National Cotton Council's Washington office.

Cotton growers cut hoeing costs with DU PONT KARMEX® DL even under conditions of rapid weed growth caused by wet weather

DIURON HERBICIDE



Outstanding weed control with "Karmex" DL on the Kenneth Leach Plantation, Lamar, Miss. Leach reports "Karmex" DL saved us a lot of trouble in the wet spring of 1957.

P. H. BROWN, B & B Planting Co., Indianola, Miss., reports: "'Karmex' DL saved our cotton crop in 1957. The rainy year caused a tremendous grass and weed problem that we couldn't have handled with hand labor. It would have been completely impossible to hoe out the weeds providing the weather had permitted and the labor been available. We found that 'Karmex' DL gave us excellent control of weeds and grasses throughout the entire critical period. Even during the past dry years, we have found that 'Karmex' DL has saved hoe labor costs of at least $10.00 per acre. We treated 200 acres during 1954 and have increased to 300 acres in 1955, 500 acres in 1956 and 600 acres in 1957. We plan to treat the entire 1,000 acres in 1958."

J. A. GERMANY, General Farm Mgr. Lee Wilson & Company, Wilson, Ark., says: "We first tried 'Karmex' DL four years ago and have increased the acreage treated each succeeding year. In 1957 we got excellent weed control with 'Karmex' DL on over 5,000 acres. We've found 'Karmex' DL especially helpful during seasons of excessive rainfall, when weed growth is rapid and wet fields prevent plowing."

KENNETH LEACH, Lamar, Miss., reports: "'Karmex' DL saved us a lot of trouble this wet spring. It gave us such outstanding weed control on 125 acres that we wish we had used it on all our 300 acres of cotton."

You can save the cost of up to four hoeings by controlling weeds with Du Pont "Karmex" DL diuron herbicide. "Karmex" DL controls weeds for up to eight weeks. "Karmex" is a pre-emergence treatment. You plant and treat all in one operation. See your dealer today for "Karmex" DL.

On all chemicals, follow label instructions and warnings carefully.

DU PONT REG. U. S. PAT. OFF.

KARMEX® DL

DIURON HERBICIDE

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Opportunities in the Future For Cottonseed Research

IT IS HARD ENOUGH to predict trends in the use of a commodity, let alone to try to predict trends in research. The tools of research change, hence, the type of research that is possible also changes. Research is now being done that was undreamed of five years ago because of the development of new tools.

One must be bold and foolish to undertake the assignment that I have undertaken here. We can perhaps rationalize it with the hope that even though the predictions may be entirely wrong, the discussion of the problem may, in itself, have some merit and benefit.

There are several approaches to the problem of projection into the future. I should like to take the following three: (A) New lines that develop from present research; (B) General developments which may affect cottonseed and its products; (C) Basic research on cottonseed. It is quite obvious that these three considerations are not independent; there may be some overlapping as we go along.

New Research Developing Out of Present Research

• **The Gossypol Era** — We can say that we are presently in the gossypol era of cottonseed research. Practically everything we are doing that relates to improving the quality of cottonseed products takes account of gossypol and the effect of this material and its products on the quality of the cottonseed products. I shall not review this work here, but only plead for patience.

The presence of gossypol was reported as early as 1886 and was isolated and named in 1899 by Marchlewski. In about 1915 evidence was presented which established gossypol as the substance primarily responsible for the toxic effects of the cottonseed kernel. The modern period might be said to start somewhere in the late Thirties or early Forties with the work of Adams at Illinois, Boatner at our Laboratory, and Lyman at Texas A&M College. The modern program on gossypol, then, has been in operation for at least 15 years, but we have been worrying about gossypol for close to 70 years.

There are some who might tire and say that there ought to be enough of gossypol, that we should go on ahead to other matters. But the progress has been so great and the opportunites are so much greater, that we must not relent in our efforts to remove gossypol as a factor in cottonseed. This may be accomplished by a chemical approach or by breeding, or probably, better yet, by a combination of the two.

The prospect of a gland-free cottonseed is exciting. We should not settle for less, if at all possible. But we must not back down on our chemical program. Even if breeding is completely successful, it will be a long time before gland-free cottonseed dominates the field.

Whichever way the gossypol problem is solved, it will be a great victory for the chemical research program and a great justification for the efforts that have gone on, because these have set the stage for the solution. When gossypol has been removed as a factor; when there is no oil color from gossypol, or egg yolk discoloration, or bound gossypol; then, indeed, we will have two entirely new products, cottonseed meal and oil, which will bear little relationship to their predecessors and which should be far superior. This is an ambition well worth realizing and well worth being patient for.

• **Post-Gossypol Research** — When the gossypol problem is solved for practical purposes—and notice that I did not say "IF" but "WHEN"—then we can begin to explore the possibilities of realizing more out of cottonseed than ever before. The color of the oil will be much better; perhaps less bleaching will be required and this may have a beneficial effect on flavor.

This discussion was presented before a recent meeting of the National Cottonseed Products Association Research Committee at College Station, Texas.

With gossypol out of the meal, we can explore for the presence of other materials which affect its value as a feedstuff. It is well known that there are factors in oilseed meals, some of which are beneficial and some of which are antagonistic. These should be looked for in cottonseed meal. It is entirely possible that small amounts of heat will be beneficial, but this possibility could not be explored as long as there was gossypol to worry about. The entire amino acid picture and the effect of heat on nutrients will have to be re-investigated.

Considerable progress has been made in developing methods of measuring protein quality. The lysine measurement developed by Dr. Frampton and his associates—which your fellowship program has assisted—is a sound measure. It will eventually be developed, I believe, into a quick measure to help the producer and feeder. It will also help in the study of the effect of heat on cottonseed protein and could lead to processing modifications that could give us meals of higher nutritive value.

And, certainly, the next program of research would include a thorough understanding of the minor constituents of the meal and oil as they affect quality, stability, and utilization. The reasons for such research will become more evident as we explore further into the possibilities for research in the future.

Trends That Could Affect the Cottonseed Industry

I would mention four: (A) Convenience foods; new edible products from cottonseed oil; (B) The increasing interchangability of food products; (C) The increased need for cheaper protein; (D) The increased concern over the relationship between diet and health.

• **New Edible Products from Cottonseed Oil** — This subject is intermediate; it arises in part from work that we have already done and in part from trends that we can visualize. The history of use of any raw material is that of increased and improved uses through technological developments. The history of use of cottonseed oil is one of constantly improved products and increased uses through technological development. Introduction of hydrogenation, for example, led to an entirely different product of improved physical properties and stability which, in turn, led to new uses for vegetable oils generally.

One trend that seems to be definite in the past several years is the trend toward convenience products. This is not a luxury matter; this is a reflection of the fact that women are an important part of our labor force and will undoubtedly continue to be so. It was estimated some time back that about 12-million homemakers work all day and, therefore, require convenience foods to serve to their families in the evening. This is reflected in the large increase in the use of premixes, semiprocessed baked products, and the like.

Such a trend develops new problems in the use of fats and oils. We cannot always afford the luxury, for example, of keeping the oil free of water and in sealed bottles or cans prior to use. In some uses the oil has to be mixed with other ingredients of premixed materials; it has the opportunity to mix with water; it has the opportunity to be subjected to enzymatic activity; there are greater opportunities for off-flavor development. We can anticipate, therefore, that there will be the need for increased information on the stability of fats, on their emulsification, and on their properties in the presence of water-soluble materials. This should strain to the utmost our present knowledge of the chemistry and physical chemistry of fats and oils, of polymorphism, of stability, of the use of antioxidants, and the like. We can anticipate a need for

(Continued on Page 33)

By AARON M. ALTSCHUL,

USDA Southern Regional Research Laboratory

Ginnings to Jan. 16

Department of Commerce reports ginnings through Jan. 16 for the current season, compared with 1956-56 and 1956-57, as follows:

State	Ginnings (running bales—linters not included)		
	1957	1956	1955
United States	*10,632,810	*13,087,860	*14,373,438
Alabama	526,185	746,195	1,036,516
Arizona	718,854	799,577	681,332
Arkansas	920,065	1,389,877	1,642,776
California	1,516,144	1,454,853	1,137,115
Florida	6,801	9,195	14,798
Georgia	388,688	578,533	692,959
Illinois	914	2,544	1,773
Kentucky	3,673	7,571	7,580
Louisiana	342,769	569,675	571,572
Mississippi	1,034,483	1,576,542	1,990,894
Missouri	170,843	444,020	417,035
New Mexico	217,321	282,134	246,544
North Carolina	236,973	362,812	357,654
Oklahoma	256,100	258,162	446,992
South Carolina	345,982	521,292	564,933
Tennessee	398,865	526,786	609,372
Texas	3,540,937	3,547,314	3,943,194
Virginia	7,213	10,778	10,399

*Includes 230,756 bales of the crop of 1957 ginned prior to Aug. 1 counted in the supply for the season of 1956-1957, compared with 404,845 and 313,958 bales of the crops of 1956 and 1955.

The statistics include 72,035 bales of American-Egyptian for 1957, 47,754 for 1956, and 39,032 for 1955.

The statistics for 1957 are subject to revision when checked against the individual returns being transmitted by mail.

CONSUMPTION, STOCKS, IMPORTS, EXPORTS

Cotton consumed during December, 1957, amounted to 571,287 bales. Cotton on hand in consuming establishments on Dec. 28, 1957 was 1,591,360 bales and in public storage and at compresses, 12,580,025 bales. The number of active consuming cotton spindles for the month was 18,144,000. The total imports for the month of October, 1957, were 16,148 bales and the exports of domestic cotton, excluding linters, for November, 1957, were 525,502 bales.

Processing Subcommittee Meets During Clinic

Members of the National Cottonseed Products Association subcommittee on processing research met Feb. 3 in New Orleans. They met during the Processing Clinic sponsored by USDA and Valley Oilseed Processors' Association.

NCPA's committee consists of James Hicky, Forrest City, Ark., chairman; H. S. Baker, Fresno, Calif.; J. H. Brawner, New Orleans; H. D. Fincher, Houston; R. P. Hutchins, Springfield, Ohio; and Lawrence Hodges and Allen Smith of Memphis.

Retired Bag Firm Official Dies at Memphis

Lawson Dunn Falls, 83, died Jan. 30 at his Memphis home. He retired about 20 years ago, after having been president of Valley Oil Co., vice-president of American Bag. and treasurer of Chase Bag Co.

His wife, two sons, two daughters, two sisters and five grandchildren survive him.

Sign-up Deadline Feb. 20

USDA announces a Feb. 20, instead of the previously-announced March 7, deadline for signing acreage reserve agreements for cotton, corn and spring wheat.

Peanut Shellers To Meet

Southwestern Peanut Shellers' Association will hold its annual convention June 25-26-27 at Lake Texoma Lodge, Kingston, Okla.

HumKo Helps Time Turn Backward

The plea "Turn Backward, O Time" has been answered. As a novelty Christmas gift, HumKo Co. of Memphis gave friends backward clocks. The hands run backward and the dials read backward. S. L. Kopald, HumKo vice-president, reports that the clocks have been very popular with the recipients.

■ **JOHN M. JOHNSON, formerly in Florida, has been named Tennessee Extension agricultural engineer.**

More Weevils Hibernate

More live boll weevils hibernated last fall in Tennessee, Mississippi, Louisiana and South Carolina, USDA reports. North Carolina and Virginia, however, had fewer hibernating weevils than in the previous fall.

Weevil count was the second highest in 22 years in Madison Parish of Louisiana, and the Tennessee hibernation was the largest in six years.

■ **JACK WHETSTONE, Dallas, secretary-treasurer of Texas Cottonseed Crushers' Association, has been in Galveston planning the annual convention. Crushers will meet June 1-3 at Hotel Galvez.**

HE FED HIS TROUBLES AWAY

Ewes Thrive When Vitamin Problem Solved on New Mexico Ranch

Photo by the author.

GOOD FEEDING, as well as good breeding, is required to keep sheep in as good condition as those shown in this photograph. How L. T. Lewis, ranchman and oil mill operator, worked himself out of a situation created by lack of vitamin A on drouthy range is described in the following article. Similarity between the names of the author and his subject is a coincidence—they're not related.

ONE THOUSAND EWES with symptoms of vitamin A deficiency! That's the problem that faced L. T. Lewis, Roswell, N.M., rancher and oil mill manager, during the range feeding season of 1955-56. What could he do to solve the problem?

Some good quality alfalfa hay was sent immediately to the ranch near Vaughn, N.M. The difficult task of feeding small groups of range ewes in the lot was begun. In addition to the alfalfa hay, the ewes received a drouth pellet and some cottonseed cake. Fortunately, all of the ewes were bred and the deficiency was discovered and corrective treatment started before shearing and lambing time. As a result the treatment with alfalfa hay was successful in preventing a reduction in the lamb crop or a reduction in fleece yield. However, the lambs weaned from these ewes averaged only 83 pounds. This compared to 90-pound lambs in past years.

With similar poor range conditions in prospect for the 1956-57 feeding season, Lewis decided there must be easier and more economical ways to prevent vitamin A deficiency in his ewes.

He self-fed a pellet containing 700 pounds of cottonseed meal, 700 pounds of milo, 225 pounds of No. 2 or No. 3 alfalfa hay, 375 pounds of salt, and two pounds of a vitamin A concentrate containing 18,144,000 units of vitamin A. He tried to make sure that his ewes received at least one-half of a pound of cottonseed meal per head, daily. This, of course, necessitated feeding a little over one pound of the mixture per head, daily. He figured that each ewe got 9,072 units of vitamin A per day at a cost of $0.02. He considers that this pellet containing the vitamin A concentrate not only saved time and labor but also improved the condition of the sheep. The lamb crop from these ewes weighed an average of 90 pounds into the feedlot. This is an increase of about seven pounds per lamb over the 1955-56 lambs.

With improved range conditions for the 1957-58 season, Lewis is using the following feeding program: Beginning Dec. 15 and continuing to March 5, he is feeding a straight 41 percent cottonseed pellet to his cattle and sheep, allowing one and one-half pounds to cattle and one-half pound to sheep, daily. From March 5 to April 5, which will be between the shearing and lambing time, he will feed a pellet containing one-half cottonseed meal, one-half cottonseed hulls, plus the 9,000 units of vitamin A per head, daily, and will also feed one pound of alfalfa hay per head, daily. At lambing time, he will feed a meal-salt pellet in proportions calculated to give the ewes one-half of a pound of cottonseed meal per head, daily. During the shearing season, his ewes will run on pasture on warm days and will be penned under shelter at night. During the lambing season, the ewes will be on pasture and will be fed the meal-salt mixture.

These mixtures were formulated and produced by Winston Lovelace, manager, Pecos Valley Cotton Oil Co., Loving, N.M.

By KENNETH O. LEWIS

Western Field Representative,

Research and Educational Division, NCPA

• Income Loss Painful For Many Farmers

FARMERS IN THE six states which comprise the Sixth Federal Reserve Bank District, (which includes Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee) received 17 percent less income in 1957 than in 1956, the January bank bulletin notes.

Although this is an estimate based on incomplete data, it is certain that 1957 was a highly unprofitable year for many farmers and that it was nearly disastrous for some, the Atlanta bank points out.

In Mississippi, for example, farm income declined 35 percent. Declines in Louisiana and Alabama were 19 and 16 percent, respectively. The farm economies in both Georgia and Tennessee suffered a 12 percent shrinkage in total income. Income in Florida was down nine percent.

Farmers' economic position in 1957 was severly weakened before harvest and badly hurt during harvest. Rains early in the season delayed plantings; local drouths slowed crop growth; hurricanes flattened crops, swept salt water over the land and killed livestock. When harvesting time came, wet weather returned to hinder operations. Then heavy rains in late October and November rotted peanuts and crippled the cotton crop by lowering yields and quality. Finally, in December excessively cold weather hit Florida's big citrus and vegetable crops. The damages resulting were compounded by heavy rains late in December that ruined vegetables, already replanted, and flooded pastures.

Ironically, the bank comments, many District farmers had voluntarily cut their acreages of cash crops at planting time, both to assure themselves of support prices and to participate in the Soil Bank. As a result they harvested 21 percent less cotton acreage, 19 percent less tobacco acreage, and 13 percent less rice acreage. When the Soil Bank's acreage reserve and the weather teamed together in 1957, cash crop output dipped far below 1956 levels. As a result 29 percent less cotton was produced in District states, 21 percent less tobacco and 14 percent less rice. Weather damage also severely reduced the output of pecans and peanuts.

Lower prices for some crops intensified the adverse effect on farm income. Last winter and spring when oranges were plentiful, their price was low. Orange prices in 1957, therefore, averaged 31 percent less than those in 1956. Prices of potatoes, soybeans, peanuts and cotton also were off in 1957.

District bankers stated that they would finance most of the regular farm customers in 1958, but they agreed that a larger-than-usual number of farmers with small farms and little or no equity in them would have difficulty obtaining credit this year.

New Bulletin

OUTLOOK FOR COTTON MARKETS OUTLINED BY HORNE

National Cotton Council has published "The Outlook for Cotton's Markets," by Dr. M. K. Horne, Jr., the Council's chief economist.

Presented at the recent annual meeting of the Council in Phoenix, this report thoroughly covers the situation which cotton faces in world markets, and will be widely used and quoted.

Ask Congress for New Cotton Law

Members of the cotton industry are being strongly urged to contact their Senators to express their views on Senate Bill S-3228, introduced by Senator Eastland of Mississippi and others. Crusher and ginner organizations say immediate action, through wires and phone calls to Senators, on this bill is essential to give farmers who want more cotton acreage an opportunity to plant it in 1958.

(A bill providing for increased acreage, but differing from the Senate Bill in its details, has been introduced in the House by Representative Jones of Missouri and is being supported by American Cotton Producer Associates. Many industry leaders feel that the important thing now is to get both the Senate and House to permit increased acreage—differences between bills can be eliminated in conference.)

Senate Bill S-3228 does the following things:

1. Provides that farmers have a choice of action.
2. Provides that individual farmers who wish to do so may increase their acreage by 30 percent. Those who take the acreage increase would be assured price support of 75 percent of parity.
3. Those farmers who desire the higher level of support provided by the present law (estimated for the 1958 crop—somewhere around 83 to 85 percent) could have it by planting not more than their original allotment.
4. If a farmer elects to take increased acreage, this acreage will not affect allotments in future years.
5. Farmers electing to increase acreage will not be eligible for Soil Bank payments. Those farmers already signed in the Soil Bank may take their acreage out of the Soil Bank, if they so desire, in order to take advantage of increased acreage. Farmers remaining in the Soil Bank will not be eligible for increased acreage.
6. Provides that farmers electing to remain within their allotments and electing to operate under the present law, who place cotton in the loan during the crop year 1958-1959, must make disposition of that cotton within 60 days from the time it is placed in the loan. If such disposition is not made within this time, the government will take possession.
7. Provides that CCC sales policy will be as follows: Aug. 1-July 31, 1959 (the 1958-1959 crop year) all cotton in CCC stocks will be offered for sale at 105 percent of the 75 percent support price plus carrying charges—or market price, whichever is higher.

Chandler Honored

W. J. CHANDLER of Moundville, Ala., has been named "Ginner of the Year," by the Alabama-Florida Cotton Ginners' Association, Inc. He will compete, along with other ginning leaders throughout the Cotton Belt, for "Ginner of the Year" to receive the annual Horace Hayden Memorial Award. (The Press carried an article about Chandler's nomination in the Jan. 25 issue.)

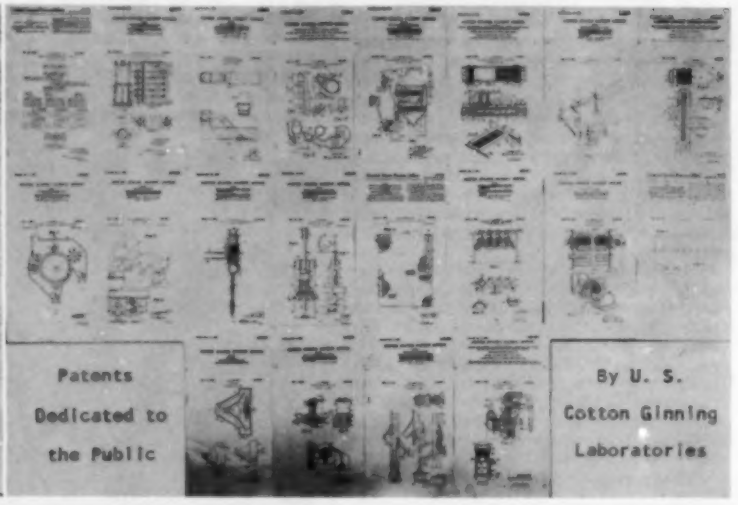
New Bulletin

HOMEMAKERS PREFER COTTON FOR MANY PURPOSES

Cotton was the overwhelming choice of homemakers for living room draperies, bedspreads and tablecoverings, USDA reports as the result of a survey. Wool was preferred for blankets and floor coverings.

Details are reported in Bulletin AMS-220, available from Agricultural Marketing Service, USDA, Washington. "Homemakers Appraise Fibers for Selected Items of Home Furnishings" is the title.

Research Improves Ginning



TOP LEFT: Some of the current cotton ginning publications written by the staff of U.S. Cotton Ginning Research Laboratories. TOP RIGHT: Some of the patents, dedicated to the public, covering methods and devices developed at U.S. Cotton Ginning Research Laboratories. LOWER RIGHT: Aerial view of Stoneville Cotton Ginning Research Laboratory, with Delta Branch Station Administration Building in background.

Part III

Stoneville Laboratory

COTTON ginning research in U.S. Department of Agriculture had its origin in the late 1920's, when a group of Mississippi Delta planters requested that a study be made of the effects of ginning on cotton quality. The heavy discount assessed against "rough preparation" cottons produced in the Mid-South high humidity area was the motivating factor.

Charles A. Bennettt (retired 1957) was employed to conduct these studies and the work began in 1927 at Tallulah, La., where the Department had research underway on other phases of cotton production.

These early studies of ginning, among other things, pointed up the fact that the high percentage of rough preparation was due to the high moisture content of the seed cotton brought to the gin. To solve this problem, the first work in ginning research by Mr. Bennett was in the establishment of the principles involved in artificially drying seed cotton and in the development of working models of gin capacity driers. Several models of driers were tried in North Louisiana and in the Mississippi Delta before the research at Stoneville Cotton Ginning Laboratory was started.

Following the first successful work on drying seed cotton, a bill was introduced in both Houses of the Seventy-first Congress in 1930 to establish a Cotton Ginning Laboratory. The text of the Bill (HR 10173) reads as follows:

Section 1. "Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the Secretary of Agriculture is hereby authorized to investigate the ginning of cotton; to establish and maintain experimental ginning plants and laboratories; and to make such tests, demonstrations and experiments, and such technical and scientific studies in relation to cotton ginning as he shall deem necessary and to publish the results thereof, with a view to developing improved ginning equipment and encouraging the use of improved methods and he may co-operate with any department or agency of the Government, any State, Territory, District, or possession or department, agency, or political sub-division thereof, or any person, as he shall find to be necessary.

Section 2. "That for the purposes of this act there is hereby authorized to be appropriated, out of any money in the Treasury not otherwise appropriated, the sum of $100,000 for the fiscal year ending June 30, 1931, and thereafter such sums as may be necessary."

This bill was passed by the Congress. Plant and laboratory facilities were soon erected at Stoneville, Miss., on ground deeded to the federal government by the Governor of Mississippi, the late Theodore G. Bilbo. Thus, the first U.S. Cotton Ginning Research Laboratory was established in 1930 and research into cotton ginning started.

• **Important Contributions**—Early studies at the Stoneville Laboratory included the work on drying systems begun previously at Tallulah, La., and new work on the principles involved in the operation of gin stands. Seed cotton drying studies included the effects of air volume, temperature, and exposure

(Continued on Page 30)

By CHARLES M. MERKEL

This concludes a series of three articles on USDA Cotton Ginning Laboratories. On Sept. 21 and Dec. 28, 1957, The Press had articles about the laboratories at Clemson, S.C., and Mesilla Park, N.M. The author of the accompanying article in Engineer in Charge of the Stoneville Laboratory.

At Houston Meeting

Cotton's Future As Fabric Stressed

■ **SCIENTIFIC studies point way to further expansion of world cotton markets.**

Dr. C. F. Lewis, department of agronomy, Texas A&M College, was the first speaker at the joint meeting of the Cotton Improvement Committee of Texas, and the American Society for Testing Materials, Southwest district, held Feb. 3 in the Rice Hotel, Houston.

Earl E. Berkley, chairman, Cotton Improvement Committee, presided over the sessions, which began at 9:30 a.m. Burris C. Jackson, chairman, State-Wide Cotton Committee of Texas, opened the session.

Dr. Lewis, in his talk "Appraisal of Hybrids Between Species as Material for Cotton Improvement," stressed the need for more work to be done with the different combinations of species that are available for study, which include a cultivated cotton of Asia, a wild shrub from Arizona and American Upland cotton.

Cameron A. Baker of the United States Testing Co., then addressed the group on "Textile Testing Instruments —The Tools of Technology." "For many, many years, cloth production was more of an art than a science," he said. "All of man's senses were utilized to duplicate a sample in like quality. Hangovers from this state of affairs are evident today in the methods we use to grade cotton, to estimate the yield of grease wool, to match dyestuffs and to evaluate "hand" or texture of finished products." He used slides to illustrate the types of equipment now being used throughout the textile industry to measure various properties in fibers, fabrics and finishes. He also discussed the areas still left open for investigation and what is being done in these fields.

C. H. FISHER

Harmon Whittington, president of Anderson, Clayton & Co., then spoke to the group on American cotton's position in world commerce.

Following the luncheon, a style show was presented by Dr. Bethel M. Caster and models from the Costume Design Shop in the College of Household Arts and Science, Texas Woman's University. Richard T. Kropf, president, American Society for Testing Materials, spoke to the group on "Fibers, Fabrics, Fashions and Future."

C. H. Fisher, director, Southern Utilization Research and Development Division, USDA, opened the afternoon sessions with his report "Recent Progress in the Chemical Modification of Cotton."

"Because of severe competition from synthetic fibers and certain other materials, research to transform cotton through chemistry into new textile products having new and durable properties has been intensified," Dr. Fisher pointed out. "Already this type of research has made more progress than in all previous history; the production of these new products, which can be called chemcottons, has become a major industry utilizing many million pounds of chemicals."

"Because of the excellent properties and low cost of cotton and the availability of many low-cost chemicals, the combination of cotton and chemicals represents an attractive means of developing many new and useful textile fibers. Chemical modification offers a good method for holding old markets—and finding new ones—for cotton," he said.

The concluding talk of the session was given by Paul C. West of the production information section of E. I. D. duPont deNemours & Co. He discussed how Dupont 420 nylon helps cotton stretch the working man's budget.

from our Washington Bureau

by FRED BAILEY
WASHINGTON REPRESENTATIVE

The Cotton Gin and Oil Mill Press

• **Washington Will Do Nothing**—Plans for the year ahead now can be made with a high degree of confidence that nothing Washington does is going to upset the cart. It's doubtful Congress and USDA could get together on a simple resolution favoring rural motherhood, much less changes in farm programs.

The question of acreage for the 1958 crop seems to be fairly well settled. At press time, all the work of National Cotton Council and others to get an emergency 25 percent increase in allotments had run into a deadend.

Benson says his lawyers tell him he doesn't have the authority, that legislation would have to be passed. Congress says that legislation would be much too slow and uncertain, that USDA should use its emergency powers. And so on and on. There's still a possibility something could be done, but it's a remote one.

Washington is campaigning for the 1958 elections. These seven words explain in a nutshell why no farm group —regardless of its problems— can get to first base with either Congress or USDA. Cotton efforts are a case in point. Some examples:

Secretary Benson fears the "inconsistency" of hiking allotments while the Soil Bank works to cut acreage would endanger the impression he's created among city folks that he is a crusader bent on "restoring sanity to farm programs." And he's counting on the votes of these people to put through his program.

Democratic lawmakers are less anxious to change farm programs than their speeches might indicate. They recognize that any bill to help cotton would also have to include wheat, corn, and dairy products . . . and that such a bill, this being an election year, might not be vetoed, despite Benson's objections. Upshot of such a measure, if made law, would be to partially take Benson off the hook in farm country. And this the Democrats don't want to do.

Some Democrats are boiling mad, however, about Benson's statement to the effect that the acreage reserve precludes increasing cotton allotments. They recall that a year ago Benson was urging an emergency increase in corn acreage, and that the fact that five million corn acres had been signed up in the Soil Bank wasn't even mentioned.

There's another reason why USDA isn't geting behind efforts to increase acreage. That is that it now has the cotton bloc over a barrel. The critical supply-demand situation has done more than all the Benson speeches combined to get support for the USDA program of larger acreage and lower supports. And he has no intention of giving larger allotments until Congress agrees to a permanent reduction in the price support minimum from 75 percent of parity to 60 percent. It's got to be an all or nothing deal, to get USDA backing.

• **House on Offensive**—House Agriculture Committee is trying to take the offensive in the farm legislative battle . . . to get into the position of favoring something rather than just being against the Administration program.

Here's the plan: To assign commodity subcommittees to study all the various proposals, and to make a recommendation to the full committee. Recommendations of each subcommittee would then be incorporated into an omnibus farm bill.

Feed grain and dairy subcommittees have already met. Both lean toward programs which would give farmers a more realistic choice between production controls coupled with government supports or less government interference in production and pricing.

Cotton subcommittee hasn't scheduled hearings. But on the basis of Congressmen we've contacted, it appears that proposals will be of two types.

No. 1. The USDA and Farm Bureau plan of gradually increasing acreage while at the same time gradually decreasing price supports.

No. 2. The National Conference of Commodity Organizations and National Grange domestic parity program . . . to be financed by a tax on first handlers. This approach has the best chance of being adopted by the Committee, but little chance of passage, and even less chance of being made law.

• **Farm Program Freeze** — Talked on Capitol Hill is a co-called "deep freeze" bill. The idea, getting considerable bipartisan support, is to freeze all farm programs at their 1957 status.

Minimum allotment of 17,400,000 acres would be extended, the Wool Act continued, dairy price cut to 75 percent of parity blocked, and USDA's reduction in wheat supports from $2 to $1.78 per boushel rescinded.

Whether Ike would sign, if passed by Congress, is far from certain. Some say "yes," recalling that in 1956 the President personally reversed Benson on lower supports. Others think the situation now is entirely different.

• **What Does Lint Shortage Mean?** — What impact will the critical shortage of quality cotton have on the cotton industry? National Cotton Council and a total of 32 industry men prepared this outlook for USDA and House and Senate Agricultural Committees:

Production of Strict Low Middling or better has been declining as a percentage of the total crop. The average since the war has been 75 percent; in 1955-56, dropped to 66 percent; in 1956-57, increased to 73 percent, and this year is only 56 percent. Meanwhile, offtake of these grades as a percent of supply has been increasing, from 71 percent five years ago to 86 percent last year.

As a result, carryover has dropped from 10 million bales on Aug. 1, 1956, to 5,400,000 on Aug. 1, 1957. Carryover this Aug. 1, is estimated at 1,800,000.

Assuming normal demand for these qualities and a normal 1958 crop, there would be no carryover by Aug. 1, 1959, but a deficit.

Cotton economists here warn that the consequences could be serious . . . that there are serious long-run as well as short-run implications:

Mills will be forced to shift to rayon since spinnable quality cotton won't be available, will be too expensive.

Other mills not equipped to shift, will be forced to cut production, lay-off workers.

U.S. will be forced to curtail shipment of quality cotton abroad. And this will provide an incentive to foreign producers to expand, such as followed the Korean War.

Markets for cotton—both foreign and domestic—will be lost, will be difficult to regain.

• **Change From 7/8 Likely**—A change in the basis for price supports from ⅞-inch middling to average-of-the-crop is getting considerable support. Benson has been proposing this change since taking office.

Opinion is that since only five percent of the crop is ⅞-inch or shorter, the change is long overdue. Also that the present basis for supports has encouraged production of low quality cotton which is in declining demand. It's argued that supports based on average-of-the-crop would be one way to help encourage the production, and to relieve the shortage, of quality cotton.

Objection to upping the support basis has been—and still is—that the result would be to cut the dollars and cents loan price by more than one cent a pound.

Schoenbach Promoted

MENO SCHOENBACH has been appointed advertising and sales promotion manager for Fulton Bag and Cotton Mills, Atlanta, Ga., according to an announcement by Clarence E. Elsas, Fulton's president. Schoenbach also will be responsible for the company's public relations program, and will have his headquarters in Atlanta. He joined the organization in 1954 and has been in the New Orleans office for the past two years.

• Two Programs Planned For Superintendents

PROGRAMS for business sessions and entertainment at two divisional meetings of the International Oil Mill Superintendents' Association have been announced.

Feb. 13-14-15 are the dates for the fifth Mexican Division Meeting of the Association, to be held at Casino de Matamoros in Matamoros. R. E. Swanson is general chairman. Business sessions will be supplemented by varied entertainment.

The Association's West Coast Division will hold its eleventh annual meeting March 7-8-9 at LaFayette Hotel, Long Beach, Calif. H. F. Crossno is general chairman; E. R. Quinn, meeting chairman; W. S. Switzer, vice-chairman, and L. P. Barr, co-chairman.

Talks and panel discussions of oil milling problems are scheduled at the business sessions. Entertainment planned includes luncheons, buffet supper, a banquet and dance.

NCPA Names Subcommittee On Oilseed Production

One of the four subcommittees operating under the authority of the National Cottonseed Products Association's Research Committee, is the subcommittee on oilseed products research.

The task assigned to this subcommittee is to develop, through research, the greatest practicable increase in the quantity and improvement in the quality of raw materials available to oil mills.

The subcommittee has recently been activated with the following members: Chairman Harold Loden, Paymaster Farms, Plainview, Texas; H. S. Baker, Producers' Cotton Oil Co., Fresno, Calif.; Jacob Hartz, Jacob Hartz Seed Co., Stuttgart, Ark.; J. M. Johnson, Anderson, Clayton & Co., Houston; R. L. Parker, Texas Sesame Seed Growers' Association, Paris, Texas; Henry W. Webb, Coker's Pedigreed Seed Co., Hartsville, S.C., and James A. Yost, J. G. Boswell Co., Corcoran, Calif.

A. C. Murdock, 81, Dies; Was Gin Operator

Alonzo C. Murdock, cotton gin operator and agricultural leader of Paragould, Ark., died Jan. 31, at the age of 81.

He was born in Chapel Hill, Tenn., and moved to Paragould about 1923 as a buyer for St. Louis Cotton Oil Co. He later operated and managed cotton gins in Marmaduke, Rivervale and Kennett and recently had been operating farming interests in Marmaduke.

He leaves his wife, a daughter, and a brother.

Margarine Legislation

Margarine legislation, H. R. 912, the bill which would permit the Navy to purchase margarine when it needs or wishes to do so, has been reported to the House by the Rules Committee. The bill was expected, at press time, to come to a vote in the near future.

The limitation on Navy purchases of margarine is the last remaining Federal restriction on this product.

Selma Soybean Corp. Opens North Carolina Mill

Selma Soybean Corp., Selma, N.C., is a new oil mill producing 44 and 50 percent soybean meal and soybean oil. R. G. Gurley is manager of the firm, as well as secretary-treasurer.

Other officers are Floyd Price, Jr., president; and A. L. Perry and A. Z. Thomson, vice-presidents.

The plant is located on Atlantic Coast Line and Southern Railroads.

New Book

THIRD EDITION OF STANDARD BOOK ON COTTON ISSUED

The third edition of "Cotton," for many years a standard reference in its field, has been published by McGraw-Hill, New York. The price is $12.

The authors are widely known for their work with cotton. Dr. Harry B. Brown was associated with Cornell University, Mississippi Experiment Station, Stoneville Pedigreed Seed Co. and Louisiana State University until he retired. Dr. J. O. Ware, also a cotton breeder, has been with USDA and the University of Arkansas throughout most of his career.

The new edition follows the general outline of those published in 1927 and 1938.

• Arizona Growers Plan Annual Meeting

U.S. SENATOR Barry Goldwater will be the main speaker at the annual meeting of the Arizona Cotton Growers' Association, to be held Feb. 18 in the Thunderbird Room of the Westward Ho in Phoenix.

Following Senator Goldwater's talk, an election of officers will be held.

Bob Price of the National Cotton Council will give an illustrated talk showing how a large part of the U.S. economy depends on cotton. A panel discussion of machine picking will be held with Jim Carter as moderator. Panelists will include Dale Cannon, University of Arizona; Lawrence Perry of Queen Creek; Jim Dalglish, Maricopa and Beardsley area, and Spencer Wilson of Buckeye.

The directors-at-large will be elected at this time also. Results of the recent mail ballot have already been announced.

Good Moisture for Crops

Crop outlook in California's San Joaquin Valley is favorable for 1958 because of the winter rains and snow, observers report. Irrigation water supplies should be ample to assure another billion dollar output of cotton and other crops.

Gin Open House Displays Lintmaster

MORE THAN 500 PERSONS attended the first public showing of this lint cleaner recently at Central Valley Co-op in Hanford, Calif. R. M. Shelburne (left), chief engineer and designer of this Hardwicke-Etter Lintmaster, is shown with Ray Noland, CVC manager, as they inspect the equipment in preparation for the open house. "This new lint cleaner, the Lintmaster, is actually three machines in one," Noland said. He pointed out that it combs, blends, and cleans fibers after ginning, and has been installed "double," meaning all the lint will pass through two Lintmasters. During the initial testing period, only two percent of the cotton cleaned by the Lintmaster was classified spot or grey. During the same period, other cotton in the area was a 25 percent spot or grey. Central Valley Co-op Gin was selected for the test due to monetary losses suffered by growers as a result of spots in cotton samples. "We are determined," Shelburne said, "to find a method of eliminating this costly nuisance. This gin offered the ideal location for our research, and we are confident that the Lintmaster, combined with the excellent cleaning and ginning machinery in the C.V.C. Gin, will give welcome relief to Valley cotton growers through added profits."

NAVY LIEUTENANT VERNON N. HOUK, left, proprietor of the "Cotton Ranch of the Snows" and commander of the U.S. South Pole Station, confers with Rear Admiral George Dufek (USN), commander of the naval support force, and P. Mogensen, right, leader of the International Geophysical Year scientific team.

Allotment: 300 Envelopes of Dirt

Cotton Growing at South Pole

COTTON'S "DEEP SOUTH" has become Operation Deep Freeze. The South Pole may soon pose allotment problems for USDA.

A Californian, Navy Lieutenant Vernon N. Houk of Firebaugh, intends to raise cotton at the Deep Freeze headquarters in Antarctica. Houk is Commander of the U.S. South Pole station as well as medical officer there. In addition, he is an old time cotton man descended from cotton families.

Originally the whole idea of growing cotton directly over the South Pole started as a joke, but the U.S. Navy took Houk seriously when he suggested raising a crop in the Deep Freeze.

Before going to the South Pole, Houk obtained some cottonseed from Bruno Malanca, gin manager for Producers' Cotton Oil Co. at Westside Gin in Firebaugh. At the South Pole problems began to multiply. A dirt farmer can't raise crops without dirt. When Houk's problems became known to the outside world, there was an immediate response. So far he has received some 300 envelopes of fertile soil in airmail letters—enough to get the cotton started in flats and to germinate the seed. At present, his principal concern, according to word received by short wave messages to his family in Firebaugh, is the arrival of some good growing soil from Rhode Island. At latest report, this soil was some twenty-four hundred miles away from the geophysical South Pole at a spot known as McMurdo.

Houk is growing his cotton in a hothouse heated by infra-red and ultra-violet rays, as well as plain electric light bulbs. Mrs. Joyce Houk, mother of Vernon, says, "He was just curious to see if the cotton would grow. I guess you can take the kid off the ranch but you can't take the ranch out of the kid, not even at the South Pole." Houk calls his project El Rancho Algodon de Las Nieves which can be translated to "Cotton Ranch of the Snows."

Houk's grandfather on his mother's side was a cotton merchant for the Sir Richard Arkwright & Co. mills in Cromford, Derbyshire, England. His father has grown cotton in the Tulare, Firebaugh, Los Banos and Dos Palos areas of California for the past 30 years. His father raised cotton in Oklahoma when Oklahoma was still a territory.

Vernon's brother Willoughby helps his father Guy keep the home cotton growing in Firebaugh. Willoughby himself won the California State Star Farmer award and the degree of American Farmer in 1946. The family at present has some 400 acres of cotton in Firebaugh. In the past they have had as much as 1,000 acres.

But "Brother Vernon" manages to get by so far with 300 envelopes of dirt —each tiny growing plot sent to him separately under a six cent airmail stamp.

Dr. John E. Chilton Joins Commercial Concern

Dr. John E. Chilton, assistant plant pathologist with the New Mexico Experiment Station, has resigned, effective Jan. 31, to accept a position with an agricultural chemical concern in Phoenix.

Dr. Chilton, who has been with the A&M Experiment Station for the past six years, has done outstanding work in the study of diseases of cotton. In his new position, he will serve as technical advisor to fieldmen for Arizona Fertilizer, Inc., in Arizona and Mexico.

Irrigation System Outlook Reviewed by Bankers

"Financing Farm Supplemental Irrigation Systems in Georgia," is the title of an article in the bulletin of the Federal Reserve Bank of Atlanta, last month. Realizing the growing importance of irrigation to farming, the bank has reviewed the situation in their district, a humid region.

"Financing irrigation systems offers lenders a real challenge for leadership in economic development. Banks, of course, being a reservoir of funds, have a strategic role and key spot for accepting such a challenge. Methods for extending credit to finance purchases of farm irrigation equipment merit constant study. Qualified farm borrowers should obtain financial aid on a basis comparable to other business firms," the article states.

In 1956 this bank sent out a brief questionnaire on bank financing of supplemental irrigation to selected banks, mostly in southern Georgia, where irrigation is more prevalent.

The results of this survey indicated that bankers believe lending for the installation or improvement of irrigation systems is a sound financing practice. Farmers considering irrigation should contact their local banks for additional information and help.

Textile Engineers To Meet

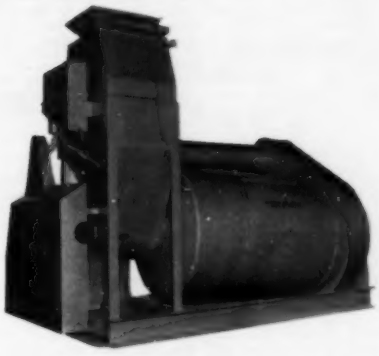
A textile conference will be held March 20-21 at Raleigh. Sponsors are North Carolina State College and American Society of Mechanical Engineers.

New Product

PANOGEN ANNOUNCES 1958 MODEL AUTOMATIC SEED TREATER

A new 1958 model, large capacity Cottonseed Treater has been announced by the Panogen Co., Ringwood, Ill.

According to the manufacturer, the new heavy duty Model US-60 seed treater will easily handle four delinting stands. It is said to treat up to eight tons of mechanically delinted planting seed, or 700 bushels of small grain, per hour.



An important feature is its continuous full-flight auger food. This insures positive delivery of seed to mixing drum and avoids clogging or pile-up of seed.

Operation is completely automatic. After lines are connected to shipping container of liquid disinfectant, treating can proceed all day long without stopping. No mixing or handling of the chemical is required.

Accurate dosage is assured by the Panogen liquid metering system, and uniform coverage of seed is attained by tumble-mixing the seed in a rotating drum. It offers the same automatic clean-out as is found in other Panogen Treaters.

Panogen Model US-60 Cottonseed Treater is supplied complete with one hp electric motor and built-in exhaust fan for removing lint, seed dust, and other waste material. Optional equipment includes two-way bagger; and inexpensive slurry adapter to convert to slurry treating of corn, beans or peas; and dual reservoirs to permit simultaneous application of a fungicide and insecticide without allowing them to mix before reaching the seed.

Additional information regarding the new Panogen Cottonseed Treater may be obtained from local Panogen Distributors or by writing to the Panogen Co., Ringwood, Ill.

Seed Bulletin Available

Proceedings of the 1957 meeting of the Association of Official Seed Analysts are available for $3.50 a copy from the secretary, L. C. Chenberger, Purdue University, West Lafayette, Ind. The 200 pages contain varied information on seed testing and related topics.

■ ROY FORKNER and JACK GOODWIN, Lubbock; PEARY WILEMON, Maypearl; and R. L. HORTON, Waxahachie, were among representatives of the ginning and crushing industry at the Statewide Cotton Committee of Texas meeting in Dallas, Jan. 27.

• South's Pea-Pickers Offered Bargain

BLACK-EYED PEA LOVERS of the South are offered a bargain by Elmore R. Torn of Taylor, Texas.

The acting president of the National Black-eyed Pea Association, Inc., has abandoned plans to unincorporate and convert it into a society. Long on members and short on money, the Association found that it would have to get the consent of 1,000 members in 42 states to unincorporate.

Instead, Torn has decided to offer the greatest bargain of an inflated era. For one cent any admirer of the black-eyed delicacy of the South may obtain a lifetime membership in the NBEPA, Inc.

Cotton Farmer Honored

Outstanding records with cotton and soybeans helped Clyde Benson, Marianna, Ark., win the title of Outstanding Lee County Young Farmer of 1957. He was chosen by the Marianna Junior Chamber of Commerce.

Fertilization and use of vetch and soybeans in rotation enabled him to increase his cotton yield from 400 pounds of lint per acre in 1951 to 690 pounds in 1957.

Retired Ginner Dies

Eli Hugh White, 67, retired ginner at Ethel, Miss., died Jan. 28. He leaves his wife, two sons, three daughters, two sisters and four brothers.

Classified Advertising

RATES AND CLOSING DATES: Ten cents per word per insertion. Include your firm name and address in making word count. Minimum charge $2.00. Copy must be in our hands by Thursday morning of week of issue. Please write plainly.

Oil Mill Equipment for Sale

FOR SALE—Anderson Super Duo expellers. Filter presses. D-K 90" 5-high all-steel cooker; 2 French 5-high 72" expeller cookers. Bauer 199—66" seed cleaner. Bauer 153 separating unit. Butters milling machine. Carver 176-saw Tru-line gummer. Carver double-drum hull beater. 141-saw Carver linters. Double-box linter press. Bar hullers. Attrition mills. 20" to 80" fans. Motors: 75 h.p. and under. Starting boxes and switches.—Sproles & Cook Machinery Co., 150 Howell St., Dallas, Texas. Telephone RI-7-5958.

FOR SALE—Filter presses, screening tanks, single and twin motor Anderson Super Duo expellers, 141-saw linters, baling presses, car unloader, Bauer #199 seed cleaners, Bauer #153 and 403 separating units, bar and disc hullers, 72" and 85" stack cookers, 72" 4-hi stack cookers for French expellers with enclosed drive, 42" and 60" rolls, boilers, hydraulic press room equipment.—V. A. Lesnor & Co., P. O. Box 108, Fort Worth, Texas.

FOR SALE—141 saw Carver wood front eccentric adjustment ball bearing linters, Fort Worth brushless units, permanent magnets, Continental feeders, GIVEAWAY PRICE. Worth having just for parts. Also 3 saw carts, Butters milling machine, Continental single box press and pump, 5-high 48" Smith & Vaile rolls.—Central Oil & Milling Company, Clayton, N.C.

INSPECTIONS and appraisal. Dismantle and installation.—Oscar V. Shults, Industrial Engineering, Phone BUtler 9-2172, P. O. Box 357, Grapevine, Texas.

FOR SALE—Complete Continental delinting plant. Two 141 linters, Bauer shaker, Clipper cleaner, slurry treater, 75 h.p. motor.—Ben White, Box 858, Shreveport, Louisiana.

FOR SALE—New V. D. Anderson Expeller parts. New Fairbanks Morse 16' x 12' 80,000 lbs. suspension bearing pipe lever hopper scale. Oil refining equipment, oil screening tank, Vogt oil chiller, 42", 36", and 30" filter presses, California heavy duty pellet mills complete with pellet coolers, shakers, and 50 h.p. T.E.F.C. motors, Carter gyrator screen, five-high cracking rolls, scale tanks, complete with Toledo scales, Richardson scales, meal coolers, pumps, and motors. Contact Lee Atherton of Archer-Daniels-Midland Co., Minneapolis, Minnesota.

OIL MILL EQUIPMENT FOR SALE — Rebuilt twin motor Anderson high speed expellers, French screw presses, stack cookers, meal coolers, fourteen inch conditioners, filter presses, oil screening tanks, complete modern prepressing or single press expeller mills.—Pittock & Associates, Glen Riddle, Pennsylvania.

Gin Equipment for Sale

FOR SALE—One complete 3-80 outfit to be moved. 3-80 saw late model Gullett gins with Super Mitchells, double screw distributor conveyor and separator, 6-drum cleaner, tower drier, Mitchell radiators, boiler with automatic oil burner, 4 single and 1 double fan, 2-75 h.p. electric motors with all controls, one seed scale, all-steel down-packing press with tramper, 1-48" condenser, hydraulic pump, vertical seed lift, 100', 9" conveyor in steel box. All line shaft on B.B. heavy floor stands. Belts like new. All at a sacrifice. Ginned 2,000 bales since gin factory rebuilt. New fronts, ribs, saw and shaft. This is not a pile of junk. Contact A. A. Hathcock, Box 223, Mt. Pleasant, N.C.

FOR SALE—Lint cleaners: 2 Lummus combers 1957 model, 5-90 1957 model Murray saw type complete, 4-90 1951 model Murray combing saw type complete, 5-90 1951 model Lummus jets complete with lint flue, Hartzell fan and 40 h.p. motor. Gins: 4-80 Continental F3 brush, 5-80 Continental F3 AB, 6-70 Continental F3 brush, 5-90 Gullett, 4-80 Continental Model C brush with 30 fronts, 3-80 Model C. brush, 7-80 glass front Murrays and lint flue for 4, 4-80 glass front Lummus and lint flue, 1-80 Continental Model E brush, 1-80 1949 Lummus. Huller cleaner feeders: 5-60" Super Mitchells, 7-80 Continental Double X, 4-80 Lummus LEF's, 1-80 Lummus MEF. Cleaners: 1-52" 8-cylinder V-drive Stacy, 1-52" 6-cylinder Murray blow-in type, 1-8' wide 6-cylinder Lummus, 1-52" Hardwicke-Etter, 1-52" 4-cylinder Continental. Driers: 2 Murray Big Reels, one 16-section Lummus Thermo-cleaner. Separators: 2-72" Murrays, 1-52" Murray, 1-52" Continental, 1-52" Gullett, 1-36" Stacy, 1-72" Lummus. Bur machines: 1-14' all-steel, V-drive Lummus, 1-14' 1956 model Stacy. Presses: One Continental steel bound up-packing, one Lummus steel bound down-packing. Engines: One V-8 Le Roi, one Twin Six MM. Electric motors and fans in various sizes.—Bill Smith, Box 604, Phones OR-4-9626 and OR-4-7847, Abilene, Texas.

FOR SALE—One 47M Number 18 Murray big reel drier. A-1 condition. Make reasonable offer to Box WD, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

FOR SALE—One swinging door double press, steel bound. 100 h.p. motor, 5-80 12" gin stands, 5-cylinder air draft cleaner, 35" superblast suction fan, Howe scale—weighing capacity, 10 tons, steel noiseless Cameron automatic cotton packer, shafting in various sizes and bearings, pulleys, belting, etc. In very good condition. For further details write Kollaja Gin Company, P. O. Box 278, Ganado, Texas.

FOR SALE—Two complete, all-steel, all-electric late model Murray gins. One 5-80 and one 4-90, both with all grid bar cleaners, 4-cylinder airlines, 2-72" 7-cylinder incline cleaners, 14' bur machines. Super Mitchells, Moss lint cleaners, new Murray Big Reel driers with 3 million BTU heaters, all-steel Murray presses. Each gin has extra large Murray sectional building with two extra large steel warehouses. Five room modern office with 50' truck scales, and several acres of land. Gins are in good condition, located in good water, all-irrigated belt and doing good business. Phone SWift 9-4940, Lubbock, Texas.

FOR SALE—3-80 saw Continental brush, all modern, all-steel gin, with 2 driers, bur machine, 2 impact cleaners, lint cleaners, Mitchell Super units, all-steel press with E.J. tramper. In operation 1957. Excellent condition. — Estate C. E. Cloutier, Natchitoches, La.

FOR SALE—5-80 Lummus gin stands and 1949 Model Lummus Thermex feeders. Completely overhauled and in excellent condition throughout. Owens Co-op Gin, Ralls, Texas.

FOR SALE—Double unit Moss cleaner complete with motors, etc. Two years old, perfect condition. Also four Murray ABC's.—Gulf Coast Gin, Port Lavaca, Texas.

FOR SALE—3-80 F-1 Continental brush gin outfit with automatic feed 4X extractors, simplex all-metal downpacking press with EJ tramper and seed scales.—Casper Tart, Dunn, N.C.

FOR SALE—3-90 Gullett brush gins first-class condition with couplings, seed hoppers and gin flues.—Toy B. Webb, Shelby, N.C.

FOR SALE—Cheap. To be moved. Located at Kingston, Oklahoma, one 6-cylinder Mitchell Jembo cleaner with extractor unit. Three-stand Mitchell conveyor distributor, three super Mitchell machines, three 1949 Model 80-saw, all-steel Cen-Tennial Commander gins with lint flue and connections. One 100 h.p. electric motor with starters, switches, conduit, cable and V-belt drive, one set of transmission, shafts, pulleys, belting, conveyor and telescoping, one 34' 40,000 capacity Webb truck scales. All the above priced at $4,000, or will sell separately. Contact Jim Hall, Phone RIverside 1-1393, P. O. Box 751, Dallas, Texas.

FOR SALE — Complete 4-80 all-electric plant, with double drying system, Mitchell Super units, 14' bur extractor, capacity 5 bales per hour or more. Will sell machinery and any buildings to be moved, or complete business to operate here. —Benavides Mill & Gin Co., Benavides, Texas.

SUPER JETS—Four Lummus Super Jet lint cleaners in excellent condition.—P. O. Box 9625, Jackson, Mississippi.

FOR SALE—One complete Murray gin with 24-shelf tower drier and 220 h.p. MM gas engine. Perfect condition. Will sell to be moved or to be run. This gin closed this December, 1957, due to manager's retirement. Write or call Vernon Schrade, CHurchill 5-3304 or CHurchill 5-3347, Rowlett, Texas.

FOR SALE—Complete 4-80 saw air blast Model C gins, all-steel up-packing paragon press, E.J. tramper, triplex pump base tank and cover, all Continental. Press alone worth the price of the outfit—$7,500.—James C. Mann, phone 2267, Covington, Ga.

FOR SALE—Gin stands: 5-80 saw Murrays with glass fronts, 6" mote conveyor, new gin ribs and huller ribs. 4-80 saw double moting automatic Lummus. Lint cleaners: 5 Murray A.B.C.'s—like new. Feeders: 5-67" Continental 4-X. 4 Hardwicke-Etter 66" with 4-cylinder after cleaners. 5-60" Super Mitchells. Driers: One No. 18 Murray Big Reel. One Continental wood press.—Kimbell Used Gin Machinery Co., Box 456, Earth, Texas.

FOR SALE—Cheap. 1-40" fan, 2 ball-bearing shafts with stands, 1 steel vacuum wheel with heat resisting belt, 14' scales, 6" and 9" conveyors, bucket elevator, belt distributor, 5-stand condenser, V and steel pulleys, 15" pipe.—Gus Wolman, Caldwell, Texas.

FOR SALE—One complete 4-80 Murray plant to be moved (no drier). Glass front stands, 4-cylinder airline cleaner-feeder extractors, 14' Wichita steel bur machine and aftercleaner, seed scales, 12-ton wagon scale, electric power. Price $8,500. Has been in operation past season and is in excellent condition. For information write Marvin Mickan, Box 358, Copperas Cove, Texas. Phone MO 7-2661.

FOR SALE—5-80 Lummus automatic cotton gin located in the Gulf Coast country. Normal season ginning over three thousand bales. Equipped with Lummus Jet and Moss lint cleaners. Good house to live in.—Box HN, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas, Texas.

SPECIAL BARGAINS—Five 80-saw late model Murray glass front gin stands, less lint flue. Four 9" rotor lifts, like new. Steel cleaners: 6-cylinder Stacy, 7-cylinder 50" Hardwicke-Etter V-belt driven, 4-cylinder 50" Continental, 8' Lummus 4-cylinder after cleaner, 5-cylinder 50" blow-in type Gullett. Five Murray saw type and four 1949 model Continental lint cleaners. Mitchell convertible and Super units in 60" and 66" lengths. Two trough Continental, two Murray Big Reels and 14-shelf Gullett driers. New tower driers in any size. Lummus and Gullett seed scales. 10' and 14' Lummus steel bur machines. 48" type M and cleaner type Lummus, 50" Gullett and 52" Murray V8 steel separators. New and used fans, belting, conveyor trough and a general line of transmission equipment. For your largest, oldest and most reliable source of used and reconditioned gin machinery, contact us. Call us regarding any machinery or complete gin plants which you have for sale or trade.—R. B. Strickland & Co., 13-A Hackberry St., Phones: Day PL-2-8141, Night: PL-3-7929, Waco, Texas.

FOR SALE—Single unit Moss Cleanmaster lint cleaner, in good condition, 1955 Model. Installed over lint flue before battery condenser. Complete with by-pass, piping and platforms, less one double 25" fan and power. $4,500 F.O.B., C. G. & S. Gin, Tokio, Texas. Phone Wheatley Exchange 3322, Brownfield, Texas.

FOR SALE—Complete gin plants. Second hand and reconditioned gin machinery.—Sam Clements, Phone REgent 5-3764, West Memphis, Arkansas.

FOR SALE—5-80 Lummus MEF feeders, excellent condition. Set of Lummus seed scales. Contact R. M. Eubanks, Oso Co-op Gin, Phone UL-2-0952, Corpus Christi, Texas.

COTTON GINS—I have several extra good buys in gins in Lubbock and South Plains area. Priced from $55,000 up, with very good terms. This country is in excellent condition for crop for this year.—W. T. Raybon, POrter 2-1605, Box 41, Lubbock, Texas.

Equipment Wanted

WANTED—Complete gin plants and used gin machinery.—Sam Clements, West Memphis, Ark.

WANTED—Three used Hinckley stick and green leaf machines. State condition, year of make, price and location. Box MB, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

WANTED—Would like to buy good, used gin machinery, especially conveyors, distributors, separators, presses, cleaners, etc.—Bill Smith, Box 694, Phones OR-4-9626 and OR-4-7847, Abilene, Texas.

WANTED—One secondhand 9' x 34' truck scale, one cotton bale platform scale, both must be in good condition. Also one or two 60 h.p. Bessemer cylinder heads. Prompt offer appreciated.—Burton Farmers Gin, Burton, Texas.

WANT to buy a standard make used butane engine 200 to 250 h.p. at 1750 RPM.—Theo Buerger, FR 9-1643, Seguin, Texas.

Personnel Ads

GIN MANAGER—Plenty of experience in all phases of cotton from production to shipping. Can handle financing and will consider foreign employment.—Box OM, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

GINNER wants year around job. Life time experience, sober, married, no children. Reference on request.—L. E. Burgess, 410 W. Vanburen, Mangum, Oklahoma. Phone 1010.

WANTED—Experienced, recognized sales representative with following for large importer of new 2-lb. Jute bagging. Excellent terms offered. In reply state territory covering, full details of experience, etc., which will be kept in strict confidence. Our present organization is aware of this advertisement. Reply Box NG, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas, Texas.

YOUNG MAN—12 years experience in oil mill, office and administrative work. Presently employed in southeast, wishes to relocate with mill in western section.—Box MT, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas 26, Texas.

Power Units and Miscellaneous

FOR SALE—Offering one carload of Arrow buckles (subject to prior sales). The above is priced for quick sale. Write, phone, or wire Island City Iron & Supply, Inc., P. O. Box 3038, 7100 Postoffice, Phone SO 3-6493, Galveston, Texas.

FOR SALE—9' x 34' Fairbanks Morse scales, Howe Weightograph, 61,000 lb capacity.—Union Farmers Gin, Phone 32, Portageville, Mo.

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services first. Contact your nearest branch.

SEE US for good used re-built engines, MM parts, belt lace, and Seal-Skin belt dressing.—Fort Worth Machinery Company, (Rear) 913 East Berry Street, Fort Worth, Texas.

FOR SALE—Good used #1 John Deere pickers and one row International pickers. Write Johnson Cotton Co., Inc., Dunn, N.C., for information.

FOR SALE—1-6,000 gallon anhydrous ammonia tank built by Beaird, 250 lb. P.S.I. at 100F, $2,000. Two 8 x 9 6-cylinder Minneapolis-Moline engines, very good condition, $850 each. One Continental steel-bound paragon press and tramper, $600.—W. H. Ritchey, Star Route, Bonham, Texas.

3,345,834 Cotton Acres in Reserve

Producers had signed and filed with county ASC committees 265,795 cotton acreage reserve agreements to Jan. 24, USDA reports. These agreements totaled 3,345,834 acres of cotton. Maximum payments for this acreage would be $182,274,684, the Department said.

Cotton Handling Problems Theme of Meeting

The problem of handling cotton—from gins to mills—will be discussed when the research and technical service committee of American Cotton Manufacturers' Institute meets at the Carolina Inn, Pinehurst, N. C., Feb. 11, according to John P. Elting of Kendall Mills, Paw Creek, N.C., chairman.

Dr. Earl E. Berkley of Anderson, Clayton & Co., Houston, one of the nation's leading authorities on the subject, will be the featured speaker. In his talk, "Technological Aspects of Cotton Handling," he will cover problems in handling cotton from harvesting to gins to warehouses and to mills.

Other items on the agenda include discussion of commercial scale spinning facilities, work conducted in the ACMI fiber laboratory, and the facilities available for textile research.

W. W. McLeod of the research laboratories of Coats & Clark, Inc., Newark, N.J., will present a summary of his investigations of the problems touching on bale packaging, cotton handling at the gins, compresses and storage and freight.

John T. Wigington of Clemson, S.C., director of technical service for ACMI, is in charge of arrangements.

• Mississippi To Have "Cotton Day" Event

THE NINTH ANNUAL Mississippi Cotton Day Celebration has been scheduled for Feb. 14, this year, and will be held in the Lee Hall Auditorium of Mississippi State College, State College, Miss.

Harvey S. Simmons, president Mississippi Cottonseed Crushers' Association, will give the main address, "Cotton." Dr. Clay Lyle, dean and director, division of agriculture, State College, Miss., will give the welcome and remarks.

The highest cotton producer from the three districts, South Mississippi, North Mississippi and the Delta Area, will make reports on their production program.

John W. Oakley, Mississippi Seed Improvement Association, will discuss planting cottonseed situation for 1958. W. R. Thompson, leader, Extension Agronomy, will discuss agronomy production problems. M. S. Shaw, associate Extension director, will make announcements.

Dalton E. Gandy, field representative, National Cottonseed Products Association, will be assisted by Si Corley, Commissioner of Agriculture, in awarding prizes and certificates.

The group will be the guest of the college at a luncheon in the college cafeteria.

Between 35 and 40 counties will be represented at the celebration program, T. M. Waller, Extension specialist, says.

Patsy Gale Martak To Wed

Patsy Gale Martak, a student at Southwestern in Memphis, and Lieutenant James Hunter Seabrook, Jr., Fort Chaffee, Ark., will be married June 28. Miss Martak is the daughter of Mr. and Mrs. William K. Martak, her father is manager of the Wesson Oil and Snowdrift Co. oil mill at Memphis.

Washington Gets Cotton Promotion Report

SECRETARY OF AGRICULTURE EZRA TAFT BENSON, left, recently received a report on foreign market development programs for cotton from Everett Cook, right, president of Cotton Council International, and Read Dunn, executive director. More than 400 Washington officials saw the cotton material recently, as reported earlier in The Press. CCI had its first showing of the new films, "Cotton, Nature's Wonder Fiber," at this meeting. Many industry people saw the film at the recent Phoenix meeting of the National Cotton Council.

Texas Will Not Lower Cottonseed Standards

Germination standards for certified and registered cottonseed will not be lowered for Texas, Dr. A. W. Young, Lubbock, chairman of the State Seed and Plant Board has announced.

The Board has received numerous requests to lower germination requirements on certified cottonseed in the state.

Young, also agronomy department head at Texas Tech, said the Board believes the present minimum certification requirements for germination of cottonseed in Texas have proven satisfactory over many years.

"There seems to be no justification," he said, "to lower these standards because of the general unfavorable climate conditions in 1957 which have resulted in lower than average germination of cottonseed in Texas.

"If the standards were lowered at this time, they would undoubtedly need to be raised again next year," he added.

Young said the Board calls attention to the Texas requirements for seed certification regulation that states "when the particular seed stocks meet all other requirements of registration and certification but the viability of the seed shows less than the designated minimum requirements for the seed, an emergency is considered to exist, and the seed in question may be marketed as registered or certified *provided* the tag is overprinted with the words 'Below Standards for Germination'."

He pointed out that in January the Board made a special ruling for cottonseed produced in 1957 and marketed in 1958 so that it may be labeled "Germination below 80 percent" to notify the purchaser that he should consult the tested seed label in order to determine the exact germination of the seed lot.

The Tech professor noted that several cottonseed producing states have lowered minimum germination standards for certified and registered cottonseed.

Young cautioned that the cotton grower should not purchase just any high germinating cottonseed for 1958.

Cotton Princess Candidates Visit Gin

COTTON PRINCESS candidates at Fresno, Calif., are shown getting ginning information from Gin Manager Marion Case of Producers' Cotton Oil Co. The girls, finalists in a contest sponsored by Fresno Cotton Wives are, left to right, Sharon Schmitt, Joan Elaine Dauer (partially hidden), Rosalene Oberti, Bonnie Jean Clark, Patricia Bracken and Nila Hansen.

Pioneer Ginner Says:

"Long-Staple Gins Nearly Ran Me Crazy"

"LONG-STAPLE GINS nearly ran me crazy," says L. A. Brewster of Fresno, Calif. Brewster is a man whose varied experiences cover almost every kind of ginning in the past 50 years, so anything that could almost run him crazy must have presented a real problem.

Recently, The Press asked Brewster to tell something of his experiences and the following article is based upon his own account. It was made possible by the cooperation of Clifford Granberry and Bill Marion of the Lummus Cotton Gin Co. office at Fresno. Brewster has been a consultant for Lummus since 1955, when he retired from the employment of Anderson, Clayton & Co. at Phoenix.

Brewster's experience in ginning goes back to his boyhood. He was born in 1888 at Parsons, Kan., but moved to Corpus Christi, Texas, in 1891.

While Brewster was in school, his father built a one-stand, 60-saw gin, grist mill and sawmill for George L. Caldwell. Young Brewster was chief engineer, firing the boiler and looking after the engine.

• **Cut Out Stand To Press Bale** — "We would have to cut the gin stand out when we were pressing a bale, due to lack of power," he recalls. "We would screw up the bale part way and wait until we got enough steam to finish the job.

"We ginned four days a week, operated the grist mill on Friday and sawed wood on Saturday."

Caldwell later bought a four-stand outfit at Gregory, Texas. Brewster describes the operation at Gregory as follows:

"There were four 60-saw stands, with upright condensers on the back. Cotton was pushed to the press with a wooden paddle and tramped by manpower. It was another screw press. We had plenty of power and were able to operate continuously. The seed poured into a box outside the gin. If the farmer did not take the seed, we hauled it out and threw it in dry washes, etc. Later we got a market for the seed; I believe $7 a ton, and we paid the freight. This seed was all loaded in the car by hand by the crew, while they were resting."

Brewster had been to school for only eight years, so his father sent him back to Kansas for more schooling. After finishing public schools, Brewster spent three years, three months and three days in the Navy.

As soon as the Navy let him go, it was back to Texas and cotton ginning in 1909—the start of almost half a century of continuous experience in the cotton industry.

He worked a while for his father at Taft Ranch, Taft, Texas. The gin was a four-stand, 70-saw outfit. Brewster built and operated "what I believe was the first airblast gin south of San Antonio." This was built for a group of farmers, operating as Long Staple Cotton and Seed Co., of which J. H. Schmalsteig was president.

• **Worked in Mexico**—The ginner decided to go West, settling down in Mexicali, Lower Californio, where he worked for the Lower Colorado River Land Co. He could speak Spanish, and was able to train a good crew. As a result, Anderson, Clayton & Co. hired Brewster when they bought the property. Dudley Johnson was general manager for ACCO.

Brewster left Mexico in 1933, but remained with ACCO, working in the San Joaquin Valley. He returned to Mexico for them in 1936, then went to Phoenix in 1938.

"It was there," says Brewster of Phoenix, "that I got tangled with long staple gins that nearly ran me crazy.

"Alf Pendleton, Charle Bennett (both with USDA) and Mr. Townsend and others were with me, trying to make a long-staple gin do what we thought it should. And," Brewster adds, "I believe they now have about succeeded." (The others give Brewster a good share of the credit as a good ginner.)

Brewster, as mentioned earlier, retired from ACCO in 1955, but continues active consultation with Lummus.

He married Eddie Lee Williams of Taft in 1910. The Brewster family includes five daughters, 13 grandchildren and five great grandchildren.

Soybean Products Uses

Exports and fertilizer use of soybean meal increased in the 1956-57 season, as compared with the two previous crop years, and industry used a larger proportion of all soybean oil. R. G. Houghtlin, president, National Soybean Processors' Association, has summarized meal and oil consumption as follows:

Soybean Oil Meal (Tons)	1956-57 Percent	1955-56 Percent	1954-55 Percent
Livestock feed	96.2	96.4	97.2
Industrial	.1	.5	.5
Fertilizer	.2	—	—
Export	3.5	3.1	2.3
	100.0	100.0	100.0
Soybean Oil (Lbs.)			
Edible	82.5	89.7	91.2
Industrial	17.5	10.3	8.8
	100.0	100.0	100.0

■ **W. O. FORTENBERRY and ROY B. DAVIS, both widely known among crushers and ginners, have been re-elected Lubbock County directors of Plains Cotton Growers, Inc. FORTENBERRY is president of Plains Growers.**

Landress, Fernandez Are Promoted by Producers

Two appointments of personnel have been announced by Ed Fischer, field department manager, Producers Cotton Oil Co., Fresno, Calif.

Weldon Landress, ginner at Five Points, Calif., is promoted to assistant maintenance superintendent on the staff of Macon Steele, superintendent. Landress will be in charge of maintenance and repairs at Producers' Sierra, Kerman, Kearney, Madera, Dairyland, Delta, Santa Rita, Oro Loma, Westside and Sunset cotton gins.

Nash Fernandez, Producers' field crop advisor, has been named gin manager at the Five Points and Huron gins. Fernandez is a graduate of the California Polytechnic Institute at San Luis Obispo. Fernandez is a native of Leon, Mexico. His parents moved to Indio, Calif., when he was nine months old. He was in the Air Force during World War II.

Landress learned ginning from his father at Ennis, Texas, where he ginned from 1925 to 1938. He worked for Taft Cotton Oil Co., Taft, Texas, from 1938 to 1942. He was a ground mechanic in the Naval Air Corps for two and one-half years, and was employed by the California Cotton Oil Corp. before joining Producers.

Loan Request Refused

USDA has advised Plains Cotton Growers, Inc., Lubbock, that loans cannot be made on below grade coton.

Research Improves Ginning

(Continued from Page 20)

time on the degree of moisture removal from seed cotton and the effects of such artificial drying on the quality of the lint obtained. Further studies of the drying system were undertaken to develop satisfactory and economical working models. Several designs were built and tested at the Laboratory.

Patents dedicated to the public were obtained on the shelf-type vertical tower drier which used the drying air as the conveying medium and contained no moving parts. This unit was selected to meet the requirements of a three percent moisture reduction on damp seed cotton and trouble-free operation.

Today's number of bales annually penalized for rough preparation has dropped to less than one-half of one percent (1956 crop), because of the widespread use of driers incorporating the USDA-developed principle.

The early gin stand studies at Stoneville were designed to find the optimum combination of elements within the gin which would produce a smooth sample at high capacity and which would provide satisfactory fiber removal.

As a result of these studies, gin saws operating at speeds of from 300 to 1,100 r.p.m. were changed to a range of from 650 to 700 r.p.m. A wide variety of saw-tooth shapes and pitches were standardized for the 12-inch saw containing from 264 to 282 straight-back or modified roach-back teeth. Roll box shapes to provide loose seed roll operation, smooth preparation, and clean seed at maximum capicity were developed and quickly adopted throughout the industry.

As cotton harvesting methods changed from careful hand-picking to rough hand-harvesting, snapping, and machine-picking, gin machinery manufacturers and Ginning Laboratory researchers gave more attention to the cleaning process. All types of cleaning equipment, commercially manufactured for removing foreign matter from seed cotton, were tested at the Laboratory in a very comprehensive study beginning as early as 1937. Individual units and combinations of cleaning elements were carefully tested for cleaning benefits as well as for effects on fiber and spinning qualities. These tests also proved that cleaning benefits could be derived from adequate seed cotton drying in connection with cleaning.

Studies were carried out to establish the quantity of machinery and its sequence that gave best grade improvements for a given investment. Present recommendations for rough-harvested Upland cotton comprise two similar stages of processing, each stage being composed of drying, cylinder cleaning, and extracting. The first stage includes a full tower drier, six or seven cylinders of cleaning, plus a master extractor in the form of a big bur machine or a stick and green leaf machine. The second stage is comprised of a full tower drier, 12 to 15 cylinders of cleaning, and an extractor in the form of the extractor-feeder. Such a gin is equipped with by-passes so that cleaner cotton may be put through only that portion of the machinery deemed necessary by the ginner or the produced.

In addition to testing existing equipment, considerable attention was given to development of special units to remove specific types of trash, such as sticks and stems and green leaf fragments not readily removed by standard equipment. Contributions made in the development of special equipment which is now in general use include grids to replace conventional screens in cleaners and a special centrifugal principle of extraction for the removal of sticks known to the cotton ginning industry as the "green leaf and stick machine."

For mechanical harvesting to be profitable, it is necessary that still more foreign matter be removed during ginning so that savings in harvesting costs will not be lost in lower lint grades. Scientists at the Stoneville Cotton Ginning Laboratory in the late Thirties began seeking systems of lint cleaning.

This work was interrupted by World War II and resumed in 1945. Several mill type machines were investigated, but rejected because of inability to perform at cotton gin capacity. Early laboratory lint cleaners had sufficient capicity but were rejected because of excessive lint loss or because they failed to provide satisfactory foreign matter removal. Step by step, faults were eliminated until, in 1948, Patent No. 2,569,501, dedicated to the public, was granted for the flow-through lint cleaner. This device had satisfactory capacity and removed sufficient foreign matter so that commercial cotton classers found from one-third to one full grade difference between cotton ginned with and without the lint cleaner.

After the introduction of the auto-

matic tramper and revolving press, the industry was plagued by rolling bales, compress "air cuts," and unsatisfactory bale wrapping. A large-scale packaging project was initiated. Investigations showed ways of improving the packaging of American cotton. The frequency of rolling bales was reduced by proper maintenance of the lint condenser and lint kicker, and a better design of press dogs. Compress "air cuts" were shown to be the result of uneven density in the bale and did not represent lint loss.

A standard density steel gin press was developed and basic data given to manufacturers. Pressing the bale to standard density at the gin has two benefits not found in flat bales later pressed to standard density: (1) Gin standard density bales are easier to open and clean at the mill because the natural lint resiliency is not "killed" during compression, (2) Gin standard density bales are smaller than low density bales and are consequently more nearly covered and protected by standard bale wrappings and, since the bales do not require further compression for domestic shipment, the original wrapping is left undisturbed until its arrival at the mill.

Other machinery developments in recent years that have gained industrial acceptance have been the automatic seed cotton feed control and the green boll and rock trap.

• **Ginning Requirements and Techniques** —Gin machinery manufacturers and USDA Laboratories continued to seek improvements in cotton ginning machinery. It became obvious that the various geographical areas could not use the same ginning machinery and methods with equal satisfaction. Therefore, gin machinery recommendations have been prepared to meet specialized needs of different geographical areas on the basis of type of cotton and predominant farming practices. The principal variations in recommendations between the different areas are in the degree of drying, cleaning, or extracting that is necessary.

For proper ginning in any area, the four-point ginning program developed by the Stoneville Cotton Ginning Laboratory and the Extension Service will be found profitable:

1. Maintain uniform loose rolls.
2. Keep over-flow to a minimum.
3. Use only necessary cleaning equipment.
4. Use only enough drying to insure smooth ginning.

Moisture content of the fiber has more effect on ginning processes and lint quality than any other single factor. Damp cotton is more difficult to clean, more susceptible to machine damage, more likely to cause chokages, and more difficult to gin smoothly. On the other hand, properly-dried seed cotton is more efficiently and satisfactorily ginned because it does clean more easily, runs without chocking, can stand more seed cotton cleaning, and produces smooth preparation samples.

Of course, overdrying is a hazard that must be recognized. The effects—beneficial or deleterious—of drying can be ascertained only when such cotton is compared directly with identical cotton ginned on the same gin with no changes other than degree of moisture removal. Degree of moisture removal with heat may be accomplished by two methods: (1) By keeping exposure time constant and varying the temperature; and (2) by keeping temperature constant while controlling the exposure time.

Both methods of drying have been used in tests with identical cottons and showed that cotton dried to about three percent moisture content exhibited almost identical fiber and spinning characteristics regardless of weather drying was accomplished at 300° F., 200° F., or 130° F. These cottons differed from the undried (eight percent moisture content) samples, particularly in fiber length, yarn strength and appearance. As a result of these tests, it is felt that differences were due to the quantity of moisture in the fiber at ginning and were not due to temperatures used in drying. Hence, the term "overheated" does not describe the processing conditions as accurately as does the term "heavily dried." Until tests can identify damage caused by temperature alone, the term "overheated" should be applied only to scorched cotton.

• **Evaluation of Ginning Studies** — Machinery development and methods tests are rigorously evaluated by the most up-to-date means available. Tests are designed to control each variable under investigation and are replicated several times, using different types of cotton and harvesting methods. Moisture content tests and foreign matter tests of both seed cotton and ginned lint are

performed at the Stoneville Laboratory. Lint classification is done by permanent employees of the AMS Cotton Classification Office at Greenwood, Miss., while fiber tests and spinning tests are performed by other USDA agencies. Occasionally test work is purchased from independent laboratories. Generally, the test analysis samples number from 3,000 to 5,000 annually. Il test samples are submitted and received in code form and are analyzed at the Ginning Laboratory.

In addition to the use of standard tests for the evaluation of ginning research, the Stoneville Laboratory maintains an active program directed toward the development of new methods and techniques for such evaluation. The fiber clinic is a very active unit where a trained staff is seeking better and faster measurements of such fiber elements as length, length distribution, nep potential, nep production, and spinning value as they are affected by ginning.

• **Field Observations and Tests** — The Laboratory actively co-operates with other government agencies or private groups to study problems related to ginning. Frequently these studies are carried out at Stoneville. At times, the nature or scope of a problem makes it necessary to use commercial ginning facilities. Commercial facilities are also used as proving ground tests when Laboratory development has been completed. Through these large-scale tests the Laboratory is able to evaluate a device or a process under actual field conditions.

An added benefit of such tests is in finding the influence of cotton growth conditions on ginning processes. This was particularly brought out in 1956, when cottons from three fields—drouthy, sprinkler-irrigated, and furrow-irrigated—were available for testing. These cottons were kept separate during testing and showed that the field conditions introduced more varation in cotton fiber and spinning quality than extreme ginning machinery changes.

• **Educational Activities** — Each year the Stoneville Laboratory is visited by several hundred individuals interested in the improvement of cotton generally and cotton ginning in particular. Visitors come primarily for conferences on specific problems, but each year several large groups come to participate in ginning clinics and short courses. Each of the Laboratories is pleased to co-operate with private groups for obtaining the most satisfactory ginning service possible. In addition to these activities, staff members are invited to contribute in conferences held by other groups interested in the work at Stoneville.

Papers on current findings are published each year either through government agencies or in outside publications.

• **Current Work** — The work at Stoneville is covered in several long-term projects, plus special projects of short term duration, specifically set up to meet urgent problems.

The gin stand research project is presently concerned with finding a method to increase the ginning rate of saw gins without further injury to fiber and spinning qualities. Recent findings indicate that such may be possible.

The moisture control project has under development a device that continuously measures and records the moisture content of lint delivered to the press. It is expected that this work will open the door to controlling the drying process on a direct moisture content basis, without regard to temperatures except for a maximum temperature limit control.

Other work under this project has shown that fiber quality of cotton heavily dried for cleaning can be improved by raising its moisture content prior to ginning. Two methods of rapid moisture restoration are under development. One involves the use of a spray system, while the other is based upon rapid absorption of moisture from high humidity air.

The study of storage of seed cotton at gins has shown that the moisture content of the seed is the critical item. Methods of reducing the seed moisture content are under investigation.

Seed drying at gins is desirable to reduce the moisture content to 12 percent or less so that the seed may be safely stored and bring a better price at the oil mill. Work under this project has developed a seed drier that achieves satisfactory moisture reduction without destroying seed viability or setting the color of the oil produced when crushed. The drier operates at gin capacity and concurrently with ginning.

The project on automatic lint sampling has under development a sampling saw that dips into the lint slide and extracts a full-width lint sample. Present indications are that this machine will be more trouble-free than current commercial models and will cost considerably less.

The dust collection project is designed to prevent undue pollution of the air in the vicinity of gins. Present designs of cyclone collectors appear very satisfactory, but their collection efficiency and operation are highly dependent upon maintenance and the degree of engineering put into the entire air handling system.

Field studies of series lint cleaning methods are being continued. The commercial use of more than one lint cleaner is not of Ginning Laboratory origin and is being assayed through the cooperation of public ginners. Results of these tests have been and will be reported as soon as possible on an "as is" factual basis.

For several years the effects of production and harvesting practices on ginning have been studied jointly with the Delta Branch Experiment Station. These studies have enabled the Stoneville Ginning Laboratory to anticipate some ginning problems and to have solutions at hand when needed. This work has also shown the need for a unified study of cotton problems from seedbed preparation to fabric finishing, since some practices along the production and processing route may affect spinning, dyeing and weaving.

Special developmental projects aimed at the solution of current problems include studies of the removal of grass and bark from machine-picked and stripped cottons. This work is well along to the extent that the bench model machines which are being tested show promise of giving a solution to the problem.

A unique device for the removal of cockleburs from seed cotton has been developed and is being tested. It shows promise of being an answer to the problem of cocklebur-contaminated planting seed.

Many other phases of different problems relating to cotton ginning are studied at the Stoneville Ginning Laboratory. Persons interested in research findings may correspond directly with the Laboratory at Stoneville, Miss., or with USDA, Washington 25, D.C.

Less Cotton in Colony

Cotton production in French Equatorial Africa dropped slightly last season to 155,000 bales. USDA reports that unfavorable weather was the cause, and that acreage is declining this season.

Opportunities For Cottonseed

(Continued from Page 16)

more fundamental research here.

Hydrogenation produces new products from fats and oils, and rearrangement, a more recent development, has produced further new products, different from fats as they occur naturally. We can anticipate that this trend will continue. One type of new development has been the synthesis of acetoglycerides which was accomplished in our Laboratory as well as in other laboratories. This has been followed by work at our Laboratory on what we call polymeric fats, which are complex materials of higher molecular weight than the original fats. Acetoglycerides are fats in which short-chain fatty acids have been substituted in part for the long-chain fatty acids in the natural fats. "Polymeric" fats are the products obtained when two or more glycerides are coupled to give higher molecular weight materials. These have the potential of creating new edible products that will fit into our modern economy.

We all recognize the difficulty that exists (and the possibility that the difficulty will be even greater in the future) in obtaining approval for use of new materials as food products or with food products. New problems in nutrition, medicine, and health have accentuated the conservatism of agencies which have the responsibility for certifying approval of new food products. It is hard for me to believe, however, that industry will give up entirely on trying to develop new food products. The need for edible coatings for meat products, nuts, cheese, and other materials, and the need for edible lubricants and plasticizers and release agents is just as great as ever. The need for edible coatings that will have some of the properties of cocoa butter, and even improve on some of its properties, exists now and will become more pressing when the science of flavors reaches a point where flavors like or approaching cocoa flavors can be made synthetically. And that time will probably be not too far distant.

Research on new edible fat products is not directed solely to cottonseed oil, but is adaptable, in general, to all edible oils. Cottonseed would benefit in such developments; hence, this properly can be considered a part of future research on cottonseed.

• **Interchangeability of Food Products**—There are trends to increase interchangeability of food materials, but there are also tendencies to emphasize their individual character. We shall discuss both of these.

In many areas and localities it is already true that a high degree of interchangeability exists in the use and processing of foodstuffs. Oilseed mills in the seaports of the West and East Coasts, as well as oilseed mills in countries like England, Holland, and France, are equipped to process a wide variety of oilseeds. They cannot afford to depend on one source of raw materials because there is not enough of any one source to occupy their facilities; therefore, they have developed a high degree of interchangeability in processing which allows them to change equipment and processing conditions rapidly to provide for different raw materials. The introduction of prepress solvent extraction has broadened interchangeability because the processing in one mill of a variety of oilseeds with widely varying oil contents becomes less difficult. Even in other areas in the U.S, except where there are massive concentrations of one or another oilseed, there is hardly a mill that has not had experience with more than one oilseed during its yearly operation.

The interchangeability that has taken place in processing has also taken place in the use of the products. Mixed feeds are now the common way of supplying feedstuffs. A variety of sources of protein and other nutrients are used in a mixed feed instead of relying on one source. When there is a deficiency of one of the raw material sources, it can be made up by blending in other materials.

The situation with oils is similar. The formulation of margarines and shortening is now largely accomplished by blending in various oils, depending on economics and availability.

This interchangeability has good and bad impacts on individual commodities. In the long run, I believe that the impact is generally for the good, because the end products have greater versatility and they are generally cheaper. One consequence of this interchangeability is that it is not necessary for any one compound to be the sole source of material to be put in a product. Thus, cottonseed meal which is a little low in lysine content and which by itself might not be completely adequate as a source of protein for poultry, with soybean meal makes an adequate mixture for poultry; its higher methionine-to-lysine ratio balances off the low methionine-to-lysine ratio in soybean meal to provide a more balanced protein foodstuff. Slightly off-colored cottonseed oil which might not be good enough quality by itself to use in a shortening could possibly be blended with another oil and yield a high quality shortening. Therefore, some of the problems which have arisen in a effort to make any one given commodity completely self-sufficient do not seem to be quite so important, if other products, no more expensive, are available for blending. On the other hand, those qualities which permit greater flexibility and greater interchangeability might assume greater importance. For example, it will probably become more important to be able to produce cottonseed meal containing 50 percent protein because of the greater opportunities for interchangeability with other meals of like protein content.

No commodity, however, can prosper on the basis of interchangeability alone. Each commodity must have some virtue of its own which would create a demand for its use, alone or in mixtures. The virtue may simply be relative cost, but this is usually not enough. Oils must have advantages in nutrition, flavor, stability, physical properties, and the like; and meals must have some particular advantage in nutrition and physical characteristics.

How do we find these advantages? These come about in the first place through experience, and are amplified and extended through research. This is one of the most important areas of research for the future. We must know more about composition of cottonseed oil and meal, particularly the minor compoents, which affect nutritional value and use-properties. Such information would provide an even better basis for selectivity of cottonseed products for specific uses.

Then we can strike a proper balance between emphasis on individual character and interchangeability. And this balance between selectivity and interchangeability is a dynamic one; it is dependent on the state of knowledge and

technology and will change up and back with progress. Research has the key role in adjusting the balance.

• **Need for Cheaper and More Abundant Protein** — It is estimated that the world population is consuming annually approximately 16 million tons of animal protein and 44 million tons of vegetable protein. This is a ratio of almost one part of animal to three parts of vegetable protein. In North America and Oceania, it is estimated that 4,300,000 tons of animal protein and two million tons of vegetable protein are consumed, for a ratio of little over two to one of animal to vegetable protein. In Western Europe the ratio is about one to one of animal to vegetable protein, and in the Far East, the ratio is about two to nine of animal protein to vegetable protein.

As the population increases all over the world, it can hardly be expected that the ratio of animal to vegetable protein will increase; contrary-wise, it might be expected that the ratio of animal to vegetable protein will decrease in those countries which now enjoy a higher ratio. This comes about because of the inherent cost of animal protein as compared to vegetable protein. We can, therefore, look forward, sometime in the future, how near we cannot tell, to the time when populations in North America and Western Europe will be eating more vegetable protein. These proteins must come from protein concentrates such as the oilseed meals; hence, the work has been done on improving the value of oilseed meals for nonruminants will benefit their use by humans.

In the final analysis, I believe it will be isolated oilseed proteins which will find maximum use for human beings. We must remember that the Chinese and Japanese curd which has been a staple in their diet for centuries, is crude isolated soybean protein. Generally, the isolated protein is free of bad-tasting, indigestible materials, and antinutritional factors; and is almost 100 percent protein. I believe that this is the great new frontier for research on cottonseed meal for humans and young animals. Much remains to be learned about isolated proteins and how to produce them in forms that will be useful and suitable, and pleasing in appearance for humans.

Of course, this development will go alongside with the increasing use of cottonseed meal for nonruminants. Once the gossypol problem is solved, then the major problems will be to maintain nutritive value at its heighest level in the meal, to be able to measure protein quality accurately and quickly, and to reduce fiber to a point where the meal can be blended successfully with other oilseed meals.

Although vegetable proteins from many sources are being considered as new sources of protein for nonruminants and man, there are only a few which fit the requirements of abundance and quality. Certainly, cottonseed protein fits into the group that would also include sesame, soybean, peanut, and perhaps some other legume proteins.

• **Relationship Between Diet and Health** —In countries where there is sufficient food, there is the question whether the correct food is being eaten. The relationship between diet and health is certainly not clear but there seems to be a growing realization of some sort of a relationship. I do not believe that the relationship is at all simple or obvious as some would have us think. Nor do I believe that the relationship is confined to the oil in the diet; there are some indications that the type of protein may also have an influence.

While there is considerable work to be done in the fields of medical and nutrition research, there is also considerable work that must be done by the cotton industry and its research scientists. Isomerization of oil during processing and use should come in for considerable study. This includes the formation of trans-isomers and migration of double bonds during hydrogenation; and this includes also the question of polymerization during heating. We, again, must emphasize the need to know more about the minor components of the oil and meal.

Major emphasis will be on the oil since it is now a major component of human diets. We must, however, consider the possibility that protein from cottonseed will also ultimately be a part of the human diet.

It is conceivable that eventually, and ideally, there will be diets for all age groups. We certainly have reached such a point for certain age groups now in our baby foods, and in the beginning of a geriatric food industry. But this may be expanded to include adolescents, young adults, middle aged, and older people as well.

When such takes place, it will become important to know what differences, if any, exist between cottonseed oil and other oils. Are any oils superior in one respect and inferior in others? Are these differences owing to the existence of particular combinations of major constituents or are they due to the minor constituents? In many instances we may use a vegetable oil now primarily because of economics or convenience. The time may come when we will select certain vegetable oils because of particular suitability and peculiar goodness. Certainly, the cottonseed people should know as much about their oil as others do about theirs; and as much as possible about the good points and the bad points, so that whenever there is a need to be selective about the choice of oil, they will be in a position to take advantage of that selectivity. This goes back again to the question of selectivity and interchangeability discussed in a previous section.

Basic Research

And then there is basic research which has no obvious practical objective nor practical consideration, but seeks information which will broaden our horizons and broaden our base of knowledge. Basic research has been defined by so many people in so many ways that one

would get into a welter of arguments and a mess of verbiage if he should try to define this too closely. We might tentatively describe basic research as, "Uninhibited and uncommitted exploration of problems with the objective of obtaining new information." Obviously, nothing is completely uninhibited or uncommitted, and the information that is obtained is usually directed toward some sort of an objective; so there are gradations of basic research, some of which are closer to questions which relate to practical objectives and some of which are a little further away.

However it is described, basic research is that type which, if successful, produces entirely new information, information which could not have been predicted. It produces new instruments; it produces new concepts; and it produces new ideas for further research. This does not mean that research with a more practical bent does not produce new information; we know that it does, but the research is circumscribed by the objectives; the less there is of circumscription, the more opportunities there are for entirely new concepts to develop. Basic research certainly has an enormously important role in the whole concept of research; there may be differences of opinion as to how much effort must be devoted to basic research in any given field. In the field of cottonseed and, in general, in the field of oilseeds, there has been entirely too little basic research.

We agree that oilseeds are major sources of food; they are major sources of protein for animal and man, and major sources of fat. Some obvious facts about amino acid composition of the protein and about the major constituents of the oil are known. The more difficult facts such as the exact nature of the protein, the differences between oilseed proteins and animal proteins, and the differences between seed proteins and proteins of rapidly metabolizing tissues are not so well known. On such problems in fats as the nature of the minor constituents and the types of materials that are associated with the fats, there is too little information. Those lipids which are intermediate between fats and carbohydrates and fats and proteins because they contain elements of both, these are known only in a vague way.

When one looks into the reason why we know less about most foodstuffs than we should know, we come upon the paradox that we know so little about these materials perhaps because they have been studied as foods. The oil from oilseeds is removed and studied as an oil food. The meal from oilseeds or isolated protein products are studied as a food. Yet protein and oil in the oilseeds are foods only by accident; their main function is to participate in the survival pattern of the seed. On germination they are a source of energy, a source of enzymes, and a building material for the new plant. It is suggested that one approach to plant foodstuffs which could lead to a greater understanding would be to study the material not as a food, but as components of the living material and as participants in the life processes of the seed and plant.

We find that the proteins that we know best are those which have been studied in relationship to their performance in living systems. We know quite a bit about the proteins of yeast, only because the enzymes of yeast have been studied extensively. Knowledge of muscle proteins stems from our interest in the physiology of muscle action. And our knowledge of blood proteins stems from our studies of problems of circulating sera. Only a few proteins exist which seem to have been created deliberately to serve as a source of nutrient; such are the proteins of some portions of eggs and milk. Similarly, our knowledge of fats is greatest in those instances where we have studied fats as components of living systems, whether they be animal fats, the fats of microorganisms, or plant fats.

What is needed along with research on cottonseed which is related to practical objectives is a study of the constituents of cottonseed as they exist in the seed and as they perform their biological functions. This information inevitably will lead to a better understanding of the same materials in foodstuffs.

I read an interesting definition of an educated man by John C. Burchard, in an Arthur D. Little Bulletin. It reads: "It is one of the puzzles of belonging to the company of educated men that you can never in an absolute sense be quite sure you do belong. For you as an individual there will always be another door, still closed, leading to still another, still more secret room. If as an individual you ever cease to perceive that there is another such door, it is ever probable that you will then cease to belong in the company of educated men."

This quotation may easily be paraphrased to apply to research, and to human progress generally.

CALENDAR

• Feb. 10-11—Annual joint convention, Texas Cooperative Ginners' Association, Texas Federation of Cooperatives and Houston Bank for Cooperatives. Baker Hotel, Dallas. For information, write Bruno E. Schroeder, 307 Nash Building, Austin.

• Feb. 10-11 — Southeastern Gin Suppliers' Exhibit. Biltmore Hotel, Atlanta. For exhibit information, write Tom Murray, 714 Henry Grady Building, Atlanta. Concurrent with joint meeting of Alabama-Florida, Carolinas and Georgia Cotton Ginners' Associations.

• Feb. 10-11 — Joint convention, Alabama-Florida, Carolinas and Georgia Cotton Ginners' Associations. Biltmore Hotel, Atlanta. Tom Murray, 714 Henry Grady Building, Atlanta, executive vice-president, Alabama-Florida and Georgia Associations. E. O. McMahan, Bennettsville, S.C., executive secretary, Carolinas Ginners' Association. Meeting concurrent with Southeastern Gin Suppliers' Exhibit.

• Feb. 12-14—Cotton Research Clinic. Pinehurst, N.C. For information, write the National Cotton Council, P. O. Box 9905, Memphis 12.

• Feb. 27-28—Oklahoma Cotton Ginners' Association annual convention. Skirvin Hotel, Oklahoma City. Edgar L. McVicker, 307 Bettes Building, Oklahoma City, secretary-treasurer

• March 4-5—Western Cotton Production Conference. Hotel Cortez, El Paso, Texas. Sponsored by Five-State Cotton Growers' Association and National Cotton Council.

• March 7-9—West Coast Division, International Oil Mill Superintendents' Association. Lafayette Hotel, Long Beach, Calif.

• March 10-12 — Midsouth Gin Supply Exhibit. Midsouth Fairgrounds, Memphis. Sponsored by Arkansas-Missouri Ginners' Association, Tennessee Ginners' Association and Louisiana-Mississippi Ginners' Association, which will have annual meetings in conjunction with Exhibit. For information on exhibit, write W. Kemper Bruton, P. O. Box 345, Blytheville, Ark.

• March 10-12 — Joint convention, Arkansas-Missouri, Tennessee and Louisiana-Mississippi Ginners' Associations. Memphis, Tenn. Held in conjunction with Midsouth Gin Supply Exhibit. W. Kemper Bruton, Blytheville, Ark., executive for Arkansas-Missouri Association; Gordon W. Marks, Jackson, Miss., executive for Louisiana-Mississippi Association; and W. T. Pigott, Milan, Tenn., executive for Tennessee Association.

• April 10-11 — Cotton Merchandising Research Clinic. Commodore Perry Hotel, Austin, Texas. For information write Joel F. Hembree, P. O. Box 8020, University Station, Austin.

• April 13-15 — Texas Cotton Ginners' Association annual convention. State Fair of Texas grounds, Dallas. Edward H. Bush, executive vice-president, Dallas. For exhibit information, write Edward H. Bush, president, Gin Machinery and Supply Association, P. O. Box 7665, Dallas 26.

• April 13—National Cotton Ginners' Association annual meeting, Dallas Texas. Tom Murray, 714 Henry Grady Building, Atlanta, executive secretary.

• April 14-15—Valley Oilseed Processors' annual convention. Buena Vista Hotel, Biloxi, Miss. C. E. Garner, 416 Exchange Building, Memphis, secretary.

• April 21-23—American Oil Chemists' Society spring meeting. Memphis. For information, write AOCS headquarters, 35 East Wacker Drive, Chicago.

• May 5-6 — National Cottonseed Products Association annual convention. Atlanta Biltmore Hotel, Atlanta. John F. Moloney, 43 North Cleveland, Memphis, secretary-treasurer.

• May 19-20 — Oklahoma Cottonseed Crushers' Association annual convention. Quartz Mountain Lodge, Lake Altus. Edgar L. McVicker, 307 Bettes Building, Oklahoma City, secretary.

• June 1-3—Texas Cottonseed Crushers' Association annual convention. Hotel Galvez, Galveston. Jack Whetstone, 624 Wilson Bldg., Dallas, secretary-treasurer.

• June 4-6—Tri-States Oil Mill Superintendents' Association annual convention. Edgewater Gulf Hotel, Edgewater Park, Miss. B. C. Lundy, Greenville, Miss., and Woodson Campbell, Hollandale, Miss., co-chairmen.

• June 5-7—American Cotton Congress at Harlingen, Texas, and Matamoros, Mexico. For hotel or motel reservation write: Harry Nunn, Madison Hotel, Harlingen. For general information write to Burris C. Jackson, Hillsboro, Texas.

• June 8-10—International Oil Mill Superintendents' Association annual convention. Baker Hotel, Dallas. H. E. Wilson, P. O. Box 1180, Wharton, Texas, secretary-treasurer.

• June 11-13 — Mississippi Cottonseed Crushers' Association annual convention. Buena Vista Hotel, Biloxi. Gordon Marks, 890 Milner Building, Jackson, Miss., secretary.

• June 23-24 — Joint Convention, North Carolina, South Carolina and Southeastern Cottonseed Crushers' Associations. Ocean Forest Hotel, Myrtle Beach, S.C. For information, write Mrs. M. U. Hogue, 612 Lawyers' Building, Raleigh, N.C.;

C. M. Scales, 318 Grande Theatre Building, Atlanta; or South Carolina Association, P. O. Box 514, Columbia, S.C.

• June 25-27 — Southwestern Peanut Shellers' Association annual convention. Lake Texoma Lodge, Kingston, Okla. John Haskins, Durant, Okla., secretary.

• June 26-27—New Mexico Cotton Ginners' Association annual convention. Navajo Lodge, Ruidoso, N.M. Carl Meriwether, P. O. Box 232, Las Cruces, N.M., secretary.

• Aug. 12-14—Beltwide Cotton Mechanization Conference. Memorial Center, Brownsville, Texas. For information, write National Cotton Council, P. O. Box 9905, Memphis, Tenn.

• Oct. 20-22—American Oil Chemists' Society fall meeting. Chicago. For information, write AOCS headquarters, 35 East Wacker Drive, Chicago.

• Dec. 18-19—Beltwide Cotton Production Conference. Rice Hotel, Houston, Texas. For information, write National Cotton Council, P. O. Box 9905, Memphis 12, Tenn.

• New Mexico Ginners Set Meeting Dates

JUNE 26-27 will be the dates for the annual convention of New Mexico Cotton Ginners' Association, directors decided at a meeting Jan. 28 in Ruidoso. The convention will be held at Navajo Lodge, Ruidoso.

An extensive business and entertainment program is planned for the meeting, according to W. L. Griffin, Deming, president.

Crushers' Committee Has Meeting at Fort Worth

Members of the public relations committee of Texas Cottonseed Crushers' Association met Jan. 26 in Fort Worth.

Committeemen attending were W. L. Goble, Jr., Waco, chairman; George W. Brassell, Jr., Lubbock, and J. W. Crawford, Quanah, vice-chairmen; Frank P. Dickson, Corsicana; F. D. Phillips, Sherman; George C. Quinn, Austin; and W. C. Smith, Wichita Falls. Other industry members present included R. P. Tull, Terrell; T. J. Harrell, Fred Davis and Louis Fields, all of Fort Worth; and C. B. Spencer and Jack Whetstone of Dallas.

■ J. R. FLAUTT, Swan Lake, Miss., cotton leader, has been appointed chairman of the state Agricultural and Conservation Committee.

Cooperative Ginners Meet at Dallas

Representatives of Texas' 350 cooperative gins are in Dallas for the joint meeting of Texas Cooperative Ginners' Association, Houston Bank for Cooperatives and Texas Federation of Cooperatives. Sessions are being held Feb. 10-11 in the Baker Hotel, and details of meeting plans were published earlier in The Press.

• White River Record Set by Soybeans

BARGES loaded with 82,000 bushels of soybeans moved down the White River from Augusta, Ark., the last week of January. The shipment, the equivalent of almost 50 carloads set a record in size for navigation of the White River in the area.

Murray Lockhart, Augusta soybean shipper, and Jack Harpster, Standard Commission Co., Memphis, arranged the shipment to Chattanooga.

Mississippi Crushers To Meet in Biloxi

Mississippi Cottonseed Crushers' Association will hold its convention June 11-12-13 at the Buena Vista Hotel in Biloxi.

Tour of Mills Planned

Ginners, producers and others of the Texas South Plains cotton industry plan a mill tour in the Southeast, April 21-22-23. The trip will be made by chartered planes.

Soybeans

(Continued from Page 9)

sion program. Some of these steps are obvious, but should be kept in mind. Among them are the following:

1. Know what you're doing—Nothing can wreck an agricultural program faster than lack of a thorough understanding of the problems and pitfalls, as well as the opportunities.

2. Make longtime plans — Careful planning, in advance, is essential. Try not to overlook anything that may come up. And, it's most important to plan for a long period. No community is going to establish soybeans in a single year. An expansion program should be set up for four or five years, and should have the full backing of the oil mill and others through the long pull.

3. Get help—The first step in starting local work is to enlist the support of key agricultural and business leaders. Get your county agent and several key farmers actively interested—make it their program rather than an "oil mill promotion."

4. Put something into it—The mill that wants soybeans must be willing to put time and money into the program. Farmers must be assured of good planting seed. Needed supplies and equipment must be available. Above everything else, the farmer must have a guaranted market for the soybeans he grows. Nothing can wreck such a program faster than one or two disgruntled farmers who have a small supply of beans that they can't sell promptly at a satisfactory price.

5. Don't raise a stepchild—Soybeans too often have been put on the "back-forty" of Southern farms and forgotten. Observers say this has been a major cause of many failures. Farmers who try soybeans for the first time should plant enough acreage to justify giving it adequate attention and care."Give soybeans as much attention as you give cotton" is good advice for any new grower. Farmers also should avoid planting more beans than they have the time and knowledge to handle efficiently.

6. Don't discourage easily—Past failure shouldn't discourage farmers or oil mills. Better varieties, better methods, more "know-how" are available now. Farmers are more receptive to new crops under present conditions. All of this doesn't mean that it will be easy to establish beans in a new area. As mentioned before, it takes years of patient effort—trial and error—to learn how to grow a new crop.

Perhaps it all adds up to this—Soybeans can expand in the South, and cotton oil mills in many areas where such expansion is possible desperately need to encourage soybeans. There's a wealth of help available to such oil mills, if they are willing to invest a lot of their own time and effort, and some money, in a sound, communitywide expansion plan. Such a plan should be started only by mills that are willing to carry it for a number of years.

To help such a program in the purpose of this and future articles planned by The Cotton Gin and Oil Mill Press. They are being written because well-informed leaders in cottonseed crushing and agriculture believe that soybeans offer many mills their best opportunity to stay in business.

• Lee Wilson Forms Delaware Firm

LEE WILSON & CO., Wilson, Ark., has merged with a Delaware firm of the same name. Wilson interests operate extensive farming and business enterprises; and are one of the stockholders of Delta Products Co. oil mill and refinery at Evadale, Ark.

Officials of the new company are R. E. L. Wilson, Jr., chairman of the board; R. E. L. Wilson, III, president; Hudson Wren, vice-president; Mrs. Patte Evans Wilson, treasurer; and Maury I. Upton, secretary. They and F. B. Wilson, Keiser, Ark., are directors.

Feed Officials To Meet With Crushers' Group

The products committee of Texas Cottonseed Crushers' Association will meet with feed control officials Feb. 18 at the Herring Hotel in Amarillo. Texas, Oklahoma, New Mexico and Colorado officials will be represented.

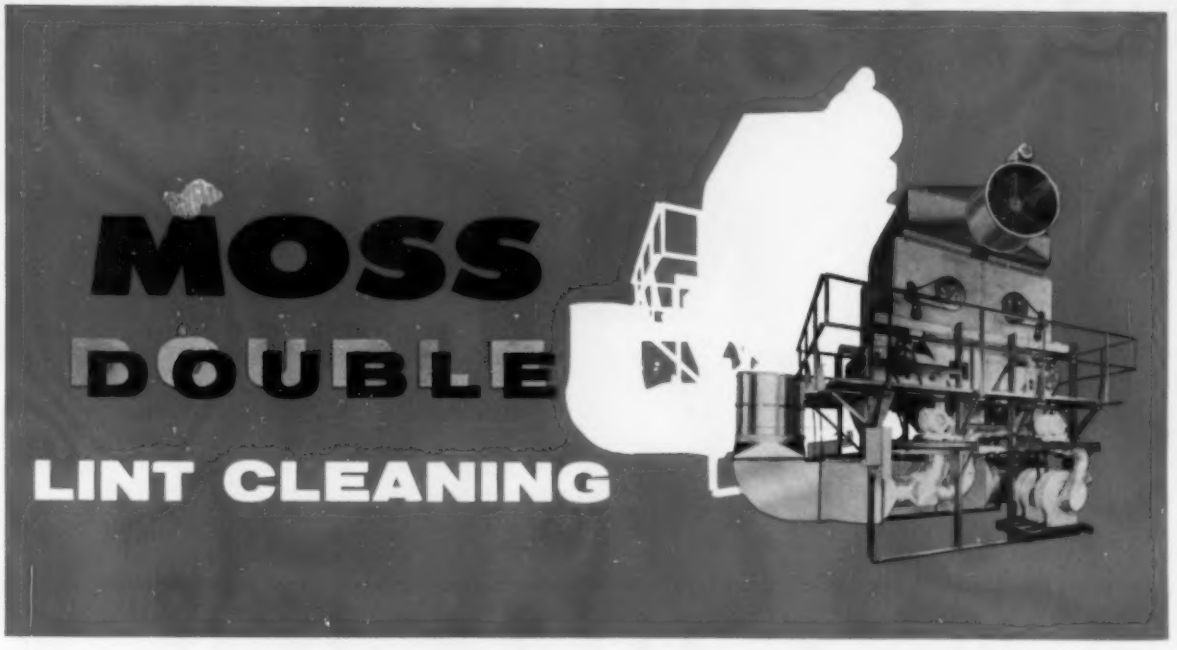
Members of the products committee are R. P. Tull, Terrell, chairman; Peter Fox, Sweetwater and R. L. Horton, Waxahachie, vice-chairmen; T. J. Barlow, Abilene; James D. Dawson, Jr., Houston; D. B. Denney, Wolfe City; T. J. Harrell, Fort Worth; W. C. Smith, Wichita Falls; W. B. Vaughan, Fort Worth; and Fred Wilson, Ennis.

Retired Texas Ginner, Dies at Plainview

James M. Bohannon, 76, retired ginner, was buried Jan. 27 at Plainview, Texas. After living in Missouri and the Lower Rio Grande Valley of Texas, he moved to Floydada, Texas, in 1951 where he was associated with his son, Wallace, in ginning. They later owned Hale County Gin at Plainview until the elder Bohannon retired.

Survivors include his wife, son, two brothers and one sister.

ENJOY ADDED PROFITS WITH



follow the "TREND to TANDEM" cleaners

ADD A **MOSS** TO YOUR PRESENT **MOSS** OR TO ANY OTHER LINT CLEANER IN YOUR PLANT . . .

2 *can do it better than one!*

Proved through years of performance, MOSS LINT CLEANERS today are cleaning more than ⅓ of the American cotton crop . . . bringing to growers and ginners alike more money from every bale. Now progressive ginners are getting *even greater profits by* DOUBLE LINT CLEANING — higher grades, better color, spot elimination.

The *best* combination is a MOSS BEHIND A MOSS. The next best is to place a MOSS behind whatever other make lint cleaner you have. Either way, you'll be in for better seasons and *more* satisfied customers.

Let us tell you of the 308 *double installations* made in 1957 by MOSS-GORDIN. You get engineering experience, not experimentation, in a MOSS. That's why MOSS-GORDIN leads all others in sales.

Lint cleaned twice is lint cleaned best.

MOSS-GORDIN
LINT CLEANER CO.

3116 Main Street
Dallas, Texas
Third Street & Ave. O
Lubbock, Texas
1132 S. Third Street
Memphis, Tennessee